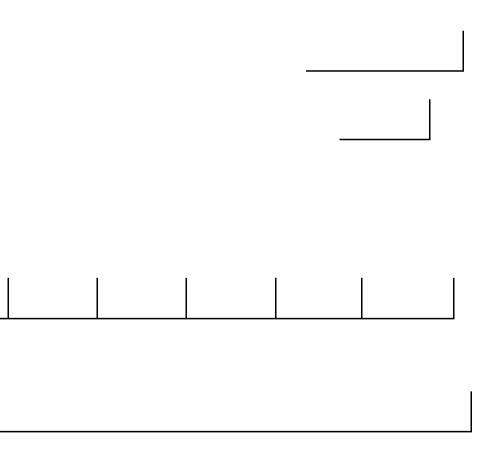
# THE BOOK OF SCIENTOMETRICS: VOLUME TWO



## 1. SURVEY OF INTEREST IN ECE FROM THE BEST UNIVERSITIES IN THE WORLD

This survey compiled from the Book of Scientometrics shows that the ECE theory has been read regularly in the top ranking universities in the world since 30<sup>th</sup> April 2004 when the Book of Scientometrics was started. The top ranking universities are defined using the top twenty in Webometrics and the top twenty in the Times Higher Education World Reputation rankings. In order of ranking they are as follows. The asterisk denotes repeat, often numerous, downloads. "Wisconsin" denotes Wisconsin Madison, and "Minnesota" denotes Minnesota Twin Cities. There are twenty nine universities in the two lists in all. The numbers for each month give the total number of these top 29 universities from which visits were received in a given month.

#### Webometrics

Harvard, MIT, Stanford, Cornell, Michigan, Berkeley, Columbia, Washington, Minnesota, Pennsylvania, Texas Austin, Wisconsin Madison, Penn State, UCLA, Toronto, Yale, Oxford, Cambridge, Purdue, Texas A and M.

Times Higher Education World Reputation Rankings

Harvard, MIT, Stanford, Cambridge, Oxford, Berkeley, Princeton, Yale, Caltech, UCLA, Tokyo, Columbia, Imperial, Chicago, Michigan, ETH, Cornell, Johns Hopkins, Kyoto, Toronto.

2015

January: Cambridge\*, Imperial, Caltech, MIT, Princeton, U Penn, Texas, Washington\*, Wisconsin, ETH, Toronto\*, Tokyo 12

February: Berkeley\*, Columbia\*, Cornell, MIT\*, Washington\*, Yale\*, ETH, Oxford\*, Cambridge\*, Imperial\*, Toronto\*, Caltech, Johns Hopkins, Texas A and M, Chicago, Wisconsin Madison 16

March: Berkeley, Cornell, Illinois, MIT, Princeton\*, Stanford, Texas A and M, UCLA, Michigan\*, U Penn, Penn State, Washington, Wisconsin, Yale, Oxford\*, Cambridge\*, Imperial, ETH, Toronto 19.

April: Columbia, MIT, Harvard, Princeton, Chicago, Texas A and M, Texas Austin\*, Wisconsin Madison, Cambridge\*, Oxford, Imperial, ETH, Tokyo 13.

May: Berkeley\*, Harvard, MIT\*, Texas A and M, Washington\*, ETH, Cambridge, Oxford, Cornell, Purdue (10).

#### 2014

January: MIT, Princeton\*, Stanford, Minnesota\*, Texas A and M, Chicago, Wisconsin Madison, ETH, Oxford\*, Cambridge\*, UCLA. 12.

February: Berkeley\*, Caltech\*, Michigan, Harvard, MIT, Penn State, Texas A and M, Toronto\*, Washington, ETH\*, Cambridge\*, Imperial\*, Oxford, Purdue. 14.

March: Berkeley, Caltech, Columbia, Cornell\*, Harvard, Pennsylvania\*, Princeton\*, Penn State, Washington\*, Wisconsin, Stanford\*, Texas A and M, Cambridge\*, Oxford. 14.

April: Berkeley, Caltech\*, Michigan\*, Princeton, UCLA\*, Oxford\*, Cambridge\*, Imperial, Harvard, Penn State, UCLA, Pennsylvania, Wisconsin, Yale\*, ETH.15.

May: Berkeley, Caltech\*, Columbia\*, Cornell\*, Harvard, Michigan, Stanford\*, Minnesota, Wisconsin Madison, Imperial\*, Oxford\*, Toronto, Imperial\*. 13.

June: Columbia, Cornell, Cambridge\*, Imperial, Tokyo\*, ETH, Imperial. 7

July: Princeton, Michigan, ETH, Cambridge\*, Imperial\*, Columbia, Cornell\*, Harvard, Oxford, Toronto, Tokyo, Johns Hopkins, Purdue. 13.

August: Caltech, MIT\*, Princeton, Michigan, Texas, ETH\*, Cambridge, Oxford, Berkeley, Columbia, Purdue\*. 11

September: Cornell\*, Stanford, Chicago, Minnesota, Pennsylvania, ETH, Cambridge\*, Imperial, Harvard, Princeton, Penn State, Chicago, Minnesota, Pennsylvania, Wisconsin Madison, Oxford\*, Cambridge, Toronto, Tokyo, Purdue. 20.

October: Caltech, Princeton, Penn State, Stanford, Texas A and M, Wisconsin Madison, Yale, Cambridge\*, Oxford\*, Toronto\*, Tokyo, Berkeley\*, Caltech, Columbia, Harvard\*, Penn State, Stanford, Texas A and M\*, UCLA, Washington, Imperial, Tokyo, Purdue\*. 23.

November: Berkeley, Caltech\*, Cornell, Princeton, Penn State, Texas A and M\*, WisconsinMadison\*, ETH\*, Cambridge\*, Oxford\*, Toronto\*, UCLA, Pennsylvania, Kyoto, Purdue. 16.

December: Caltech\*, Columbia, Cornell, Chicago\*, UCLA, Pennsylvania, Washington\*, Cambridge\*, Tokyo\*, Michigan, Purdue, Johns Hopkins. 12.

#### 2013

January: Caltech\*, Cornell\*, Harvard, Michigan\*, Chicago\*, Cambridge\*, Kyoto, Tokyo\*, Berkeley, Columbia\*, Johns Hopkins, MIT\*, Purdue, Stanford, Texas A and M, Minnesota, Texas, Wisconsin Madison, Oxford\*, Toronto\*, ETH, UCLA\*. 23

February: Berkeley\*, Caltech\*, Columbia\*, Cornell\*, MIT\*, Purdue, Chicago\*, Michigan\*, Minnesota, Pennsylvania\*, Texas\*, Washington\*, Wisconsin Madison\*, Cambridge\*, Imperial\*, Oxford\*, Toronto, Tokyo, Harvard\*, Johns Hopkins, MIT\*, Princeton, Penn State, Kyoto, ETH. 25.

March: Berkeley\*, Caltech\*, Michigan\*, Columbia, Cornell, Harvard, MIT\*, Princeton\*, Stanford, Chicago\*, Washington, Madison Wisconsin\*, Yale, Imperial, Cambridge\*, Toronto\*, Tokyo, Purdue, ETH\*, UCLA. 20.

April: Berkeley\*, Caltech\*, Harvard, Johns Hopkins, MIT, Princeton\*, Penn State, Purdue, Chicago\*, Texas\*, Imperial\*, Oxford\*, Toronto\*, Columbia\*, Cornell\*, Michigan, Texas A and M, Wisconsin Madison, Cambridge\*. Tokyo\*, ETH. 21.

May: Berkeley, Caltech, MIT\*, Minnesota\*, Stanford, Michigan\*, Wisconsin Madison\*, Texas\*, Washington\*, Cambridge\*, Oxford\*, Texas A and M, Imperial\*, Kyoto, Tokyo, UCLA. 16.

June: Columbia\*, MIT\*, Chicago, Cambridge\*, Imperial\*, Oxford\*, Toronto\* Kyoto, Tokyo, Cornell, Michigan, Stanford\*, Madison Wisconsin, ETH, UCLA\*. 15

July: Chicago, Columbia\*, Harvard, Michigan\*, Penn State, Texas A and M, Wisconsin Madison\*, Oxford, Berkeley, Cornell\*, MIT, Princeton, Penn State, Yale, Cambridge\*, Tokyo, ETH\*. 17.

August: Cornell\*, Harvard\*, Princeton, Texas A and M, Washington\*, Cambridge\*, Oxford\*, Tokyo, Texas, Minnesota, ETH, Yale. 12

September: Columbia\*, Princeton\*, Stanford, Texas A and M\*, Michigan\*, Minnesota\*, Texas\*, Wisconsin Madison\*, Washington\*, Imperial\*, Harvard, MIT\*, Penn State, Chicago, Texas, Oxford\*, UCLA. 17.

October: Caltech, Columbia\*, Cornell, MIT, Princeton\*, Penn State\*, Purdue, Texas A and M, Chicago, Yale, Imperial\*, Oxford\*, Caltech, Purdue, Harvard, ETH, Cambridge, UCLA\* 18.

November: Berkeley, Caltech\*, Columbia, Cornell, Princeton\*, Stanford\*, Texas A and M, Chicago, Michigan\*, Pennsylvania, Washington, Cambridge\*, Oxford\*, Imperial\*, Harvard, MIT\*, Purdue, ETH, Toronto, UCLA. 19

December: Berkeley, Caltech, Harvard, MIT, Michigan\*, Princeton\*, Texas, Yale, Cambridge\*, Oxford\*, Columbia, Texas A and M, Imperial, Chicago. 14

#### 2012

January: Toronto, Berkeley, MIT, Texas A and M\*, Cambridge\*, Kyoto, Caltech\*, MIT\*, Princeton, Purdue\*, Minnesota, Texas, ETH, Imperial\*, Oxford\*, Tokyo. 16

February: Berkeley\*, Caltech\*, Harvard\*, Stanford\*, Texas A and M, UCLA\*, Minnesota\*, Washington, Cambridge\*, Oxford\*, Cornell, Johns Hopkins, Michigan\*, Pennsylvania, Yale\*, Purdue, ETH, Toronto\*, Tokyo. 18

March: Caltech\*, Michigan\*, Cornell\*, Harvard\*, MIT\*, Chicago, Washington\*, Wisconsin Madison\*, Oxford\*, Imperial\*, Berkeley, Minnesota, Penn State, Texas A and M. 14

April: Berkeley\*, Columbia, Cornell\*, Harvard\*, MIT\*, Princeton, Penn State\*, Purdue, Texas A and M\*, Chicago\*, UCLA, Michigan\*, Cambridge\*, Imperial\*, Oxford\*, Tokyo, Minnesota, Pennsylvania, Washington, Yale, Texas. 21

May: Caltech\*, Cornell\*, Purdue, MIT\*, Princeton\*, Penn State, Texas A and M, Chicago\*, Texas, ETH\*, Imperial, Cambridge\*, Oxford\*, Tokyo, Harvard, Minnesota\*, Washington. 17.

June: Cornell\*, Chicago\*, UCLA, Michigan, Washington\*, Cambridge\*, Oxford\*, Caltech, Johns Hopkins, Michigan, Stanford, Pennsylvania, Wisconsin, ETH, Imperial\*, Toronto, Tokyo\*. 17

July: Berkeley\*, Caltech\*, Columbia\*, Purdue, Stanford, Minnesota, Texas\*, Washington, Imperial, Toronto, Cornell, Harvard, MIT, Michigan\*, ETH. 15

August: Caltech, Michigan\*, Penn State, Purdue, Columbia, Stanford, Texas, Cambridge, Imperial. 9

September: Berkeley\*, Caltech\*, Columbia\*, Cornell\*, Harvard\*, MIT, Princeton, Penn State\*, Purdue\*, Texas A and M, Toronto\*, UCLA, Chicago, Michigan\*, Washington, Wisconsin Madison, ETH, Cambridge, Oxford\*, Johns Hopkins, Minnesota, Texas, Kyoto. 23.

October: Berkeley, Caltech, Columbia\*, Cornell\*, Harvard, Johns Hopkins, MIT\*, Princeton\*, Penn State, Purdue\*, Texas A and M, UCLA, Pennsylvania, Texas\*, Yale\*, Cambridge\*, Imperial\*, Oxford\*, Toronto, Michigan\*, UCLA\*. 21

November: Caltech\*, MIT\*, Penn State\*, Purdue, Stanford\*, Texas A and M\*, Chicago, UCLA\*, Texas\*, Wisconsin Madison, Yale\*, ETH\*, Cambridge\*, Imperial\*, Oxford\*, Toronto, Columbia, Cornell, Harvard, Michigan, Minnesota, Kyoto. 22

December: Berkeley, Caltech, Columbia\*, Cornell, Harvard, MIT, Stanford, Texas A and M\*, Chicago, UCLA, Pennsylvania\*, Texas, Washington\*, Cambridge\*, Imperial, Kyoto, Tokyo\*, Johns Hopkins, Oxford. 19

#### 2011

January: Caltech\*, Columbia, Johns Hopkins\*, MIT\*, Penn State\*, Purdue, Stanford\*, Texas, Oxford\*, Tokyo, Berkeley, Harvard, Michigan, Pennsylvania, Washington, Cambridge\*, Toronto. 16.

February: Berkeley\*, Caltech\*, Harvard, Johns Hopkins\*, MIT\*, Penn State, Stanford\*, Texas A and M\*, Washington, Imperial\*, Oxford\*, Tokyo\*, Columbia, Cornell, Princeton, Purdue, Chicago, Minnesota, Pennsylvania, ETH, Cambridge\*, Tokyo. 22.

March: Caltech\*, Cornell\*, Harvard, MIT\*, Princeton, Penn State, Purdue, Stanford\*, Washington, Wisconsin, ETH\*, Cambridge\*, Oxford\*, Kyoto\*, Yale. 15.

April: Berkeley, Caltech\*, Harvard\*, MIT\*, Princeton, Penn State\*, Texas A and M, Minnesota, Washington, Wisconsin\*, Yale\*, Oxford\*, Cambridge, Imperial\*, Toronto\*, Columbia\*, Cornell, Purdue, Chicago\*, Pennsylvania, Texas, Toronto, Tokyo. 23.

May: Johns Hopkins, MIT, Princeton, Purdue\*, Stanford, Michigan\*, Minnesota\*, Washington, Imperial\*, Cambridge\*, Oxford\*, Berkeley, Kyoto, Caltech\*, Harvard, Penn State, UCLA. 17.

June: Columbia, Cornell\*, UCLA, Texas, Cambridge\*, Imperial, Oxford\*, Berkeley, Purdue, Texas A and M, Michigan, ETH, Tokyo. 13.

July: Columbia\*, Cornell\*, MIT, Princeton, UCLA, Michigan\*, Texas\*, Wisconsin, Cambridge\*, Oxford, Caltech, Johns Hopkins, Texas A and M, Chicago, Washington, Imperial, Kyoto\*, Tokyo. 18.

August: Harvard, Stanford, Texas A and M, Michigan, Minnesota, Texas\*, Wisconsin, Princeton, Cambridge\*, Cornell\*, MIT, Princeton, Penn State, Purdue\*, Texas A and M, Oxford\*, Imperial\*. 17.

September: Berkeley\*, Cornell\*, Harvard\*, Texas A and M\*, Wisconsin\*, Imperial, Oxford\*, Columbia, MIT\*, Princeton, Penn State, Purdue, Stanford, Michigan, Texas\*, Washington\*, Cambridge\*. 17.

October: Caltech, Columbia\*, Harvard\*, Purdue, MIT\*, Texas A and M, Chicago\*, Texas\*, Wisconsin, Yale\*, ETH, Cambridge\*, Toronto, Cornell, Princeton\*, Purdue, UCLA, Oxford, Imperial\*, Toronto\*. 20.

November: Berkeley, Caltech\*, Columbia, MIT\*, Princeton, Penn State\*, Purdue\*, Chicago, Michigan, Minnesota, Texas, Washington\*, Wisconsin, Yale, Cambridge\*, Imperial\*, Oxford\*, Toronto\*, Tokyo, Columbia, Cornell\*, Harvard\*, ETH. 23.

December: Caltech\*, Columbia\*, Cornell\*, MIT\*, Princeton\*, Penn State, Purdue\*, Stanford\*, Texas A and M, Texas\*, Michigan\*, Washington, Wisconsin\*, UCLA, ETH\*, Cambridge\*, Oxford\*, Toronto, Imperial, Kyoto\*, Tokyo, Harvard. 22.

#### 2010

January: Berkeley\*, Caltech\*, MIT\*, Princeton\*, Stanford\*, Chicago, Kyoto, Michigan\*, Johns Hopkins, Princeton, Penn State\*, Purdue\*, U Penn, Yale, Cambridge, Oxford, Toronto, Tokyo. 18.

February: Berkeley\*, Caltech, Columbia\*, Michigan\*, Harvard, Johns Hopkins, MIT\*, Penn State\*, Texas A and M\*, Chicago, UCLA\*, Minnesota, U Penn\*, Washington, Cambridge\*, Oxford\*, Imperial, Cornell\*, Texas\*, Toronto. 20.

March: Caltech, Chicago, Cornell, Harvard\*, MIT\*, Texas A and M, Minnesota\*, Imperial\*, Oxford\*, Michigan, Penn State, Purdue, U Penn. 13.

April: Berkeley, Caltech\*, Michigan\*, Harvard, Princeton\*, Penn State, U Penn\*, Washington, ETH, Cambridge\*, Oxford\*, Toronto, Stanford, UCLA, Minnesota, Texas, Wisconsin, Imperial, Kyoto. 19.

May: Cornell, Harvard, Purdue, MIT\*, Princeton\*, Penn State\*, Minnesota, U Penn, Texas\*, Washington, Cambridge\*, Oxford\*, Tokyo\*, Harvard, Imperial\*, Tokyo\*. 16

June: Caltech\*, Stanford, Texas A and M, Minnesota, U Penn, Washington, Wisconsin, Yale, Cambridge\*, Oxford\*, Tokyo, Columbia\*, Cornell. 13.

July: Caltech, Harvard\*, Johns Hopkins, MIT\*, Princeton\*, Penn State, Michigan\*, Imperial\*, Oxford\*, Toronto, Stanford, UCLA, Washington, ETH, Cambridge\*, Tokyo. 16.

August: Berkeley, MIT, Texas, Yale, Cambridge\*, Tokyo, Cornell\*, Harvard, MIT\*, Texas A and M, Michigan, Imperial, Oxford. 13.

September: Caltech, Columbia\*, Cornell\*, Harvard\*, MIT\*, Purdue, Stanford, Texas A and M\*, Wisconsin\*, Cambridge\*, Imperial, Oxford, Berkeley\*, Princeton, Purdue, Michigan, Minnesota, Texas\*, Yale\*. 19.

October: Harvard\*, MIT, Princeton, Penn State\*, Purdue, Stanford\*, U Penn\*, Texas\*, Yale\*, Cambridge\*, Berkeley, Columbia, Cornell\*, Johns Hopkins\*, MIT\*, Princeton\*, Penn State, Chicago\*, Washington, ETH\*, Imperial\*, Oxford\*, Tokyo\* 23. out of over 700 visits from universities, institutes and similar during the month.

November: Berkeley\*, Caltech\*, Columbia\*, Cornell\*, Purdue, Johns Hopkins\*, MIT, Penn State\*, Stanford, Texas A and M, Chicago\*, UCLA, Michigan\*, Minnesota\*, U Penn, Washington, Wisconsin\*, Yale, ETH\*, Cambridge\*, Imperial, Oxford\*, Toronto\*, Tokyo\*, Harvard\*, Texas\*. 26.

December: Berkeley, Caltech, Colorado, Cornell\*, Harvard\*, Johns Hopkins, Stanford, Chicago\*, UCLA\*, Michigan\*, Minnesota\*, U Penn\*, Texas, Cambridge, Imperial. Oxford\*, Toronto, Tokyo\*, Kyoto. 19. 2009

January: Harvard\*, Princeton, Purdue, Texas, Michigan, U. Penn, Washington, Wisconsin, Cambridge\*, Oxford\*, Stanford\*, Toronto\*, Chicago, UCLA, Yale, ETH, Tokyo. 17.

February: Caltech, Columbia, Cornell\*, Harvard\*, MIT\*, Penn State\*, Purdue, UCLA\*, Minnesota, Texas\*, Washington\*, ETH, Cambridge\*, Imperial\*, Oxford\*, Toronto\*, Tokyo, Berkeley\*, Wisconsin. 19.

March: MIT\*, Princeton\*, Stanford, Texas A and M, Minnesota, Wisconsin, Cambridge\*, Oxford\*, Imperial\*, Toronto, Penn State\*, Chicago, Michigan\*, Yale. 14.

April: Caltech, Columbia, Harvard, Johns Hopkins\*. MIT\*, Penn State\*, Stanford\*, Texas A and M\*, Toronto, Minnesota, U Penn, Washington\*, Oxford, Purdue, UCLA, Michigan\*, Texas, Wisconsin, Cambridge\*, Imperial. 20.

May: Berkeley, Columbia, MIT\*, Princeton\*, Stanford\*, Michigan\*, Texas, Cambridge\*, Oxford\*, Toronto, Caltech, Cornell, Harvard, Johns Hopkins, Chicago\*, Minnesota, U Penn, Washington. 18.

June: Caltech, Harvard\*, Purdue, Texas A and M\*, Washington, Oxford\*, Imperial, Toronto, Purdue, ETH. 10.

July: Columbia, Purdue, Michigan, Texas, Princeton\*, Kyoto, Cornell\*, Harvard, Johns Hopkins, Penn State\*, UCLA, Washington, Wisconsin, Imperial. 14.

August: MIT\*, Penn State\*, Stanford, Texas A and M, Chicago\*. Michigan\*, U Penn\*, Texas, Washington, ETH, Oxford\*, Toronto, Berkeley, Caltech, Columbia, Harvard, Princeton\*, Purdue\*, Minnesota, Cambridge\*, Imperial. 20.

September: Columbia, Cornell, Harvard, Johns Hopkins\*, MIT\*, Penn State, Purdue, Stanford\*, Texas A and M\*, Minnesota, Texas, Washington, Wisconsin\*, Cambridge\*, Imperial\*, Oxford\*, ETH. 17.

October: Columbia, Cornell, Harvard, MIT\*, Princeton\*, Penn State\*, Purdue\*, Texas A and M, Chicago\*, U Penn, Washington\*, Wisconsin, Cambridge\*, Imperial\*, Oxford\*, Tokyo\*, Caltech\*, Cornell\*, Johns Hopkins, Stanford, Toronto, Texas\*, Yale. 23.

November: Caltech, Columbia\*, Cornell\*, MIT\*, Penn State\*, Purdue\*, Chicago\*, Texas\*, Washington, Wisconsin\*, Yale, ETH\*, Cambridge\*, Oxford\*, Kyoto, Johns Hopkins, Princeton, Michigan, Minnesota, Imperial, Toronto, Tokyo\*. 22.

December: Caltech, Columbia, Harvard\*, Johns Hopkins, MIT\*, Purdue, Texas A and M, Washington\*, Yale, Cambridge, Imperial\*, Oxford\*, Tokyo, Michigan\*. 14.

#### 2008.

January: Johns Hopkins, ETH\*, Cambridge\*, Imperial\*, Toronto\*, Caltech, Michigan, Harvard, MIT, Minnesota, Wisconsin, Oxford\*, Kyoto, Tokyo. 14.

February: Harvard\*, Purdue\*, Stanford, Minnesota, Washington, Cambridge, Michigan\*, Johns Hopkins, U Penn, Cambridge\*, Imperial, Oxford. 12.

March: Caltech, Johns Hopkins, MIT\*, Princeton, Stanford, Texas A and M, UCLA\*, Michigan, Wisconsin, Washington, ETH, Toronto, Berkeley, Harvard, Purdue. 15.

April: Caltech, Cornell, Princeton\*, Stanford, ETH, Berkeley, Harvard, Texas A and M, ETH, Cambridge\*, Imperial\*, Toronto. 12.

May: Columbia, Cornell, MIT, Michigan, Purdue, Washington\*, Imperial, Caltech, MIT, Texas, Toronto. 11.

June: Berkeley, Johns Hopkins, MIT, Princeton\*, Washington, Cambridge\*, Imperial\*, Cornell, Minnesota, 9.

July: Berkeley, Caltech, Johns Hopkins, MIT, ETH\*, Cambridge, Cornell, Harvard, Princeton\*, Purdue, Stanford\*, Minnesota, Toronto. 13.

August: Cornell, MIT, ETH\*, Cambridge, Oxford, Texas A and M, Washington, 7.

September: Columbia, Michigan, Washington, Cambridge, Imperial\*, Berkeley, Princeton, Purdue, Texas A and M, Washington, Oxford\*, Toronto, 12.

October: Berkeley, Stanford, Chicago, Cambridge\*, Imperial\*, Oxford\*, Toronto, Columbia\*, Harvard, MIT, Penn State 11.

November: Caltech\*, Columbia\*, Johns Hopkins, MIT\*, Texas A and M, Toronto\*, Minnesota, Washington, Yale, Cambridge\*, Imperial\*, Oxford\*, Cornell\*, Princeton\*, UCLA, Texas, Berkeley. 17.

December: Berkeley, Cornell\*, MIT, UCLA, ETH, Cambridge, 6.

#### 2007

January: Berkeley, Harvard, Johns Hopkins\*, MIT, Princeton\*, Penn State\*, UCLA, U Penn, Washington, Yale, Cambridge\*, Toronto, Purdue, Texas A and M, Texas\*, Imperial, Tokyo. 17.

February: Harvard, Purdue, Stanford\*, Chicago, Minnesota, Cambridge, Imperial\*, Oxford\*, Toronto, Tokyo, Berkeley\*, Caltech, Harvard, MIT, Princeton, Penn State, UCLA, Washington\*, Purdue, Michigan. 20.

March: Princeton, MIT, Penn State, Stanford, Texas A and M, UCLA, Michigan, Minnesota, Washington\*, Wisconsin\*, Cambridge\*, Imperial\*, Oxford\*, Toronto, Tokyo, Berkeley, Johns Hopkins, Purdue, Yale. 19.

April: Caltech\*, Columbia, Harvard\*, Johns Hopkins, MIT\*, Penn State\*, Purdue\*, Texas A and M, Washington, Oxford\*, Berkeley\*, Cornell, Stanford\*, Cambridge\*, Imperial, Tokyo. 16.

May: Berkeley, Columbia, Harvard, Johns Hopkins\*, MIT, Princeton, Cambridge, Imperial, Tokyo, Caltech, Stanford, Oxford\*. 12.

June: Stanford\*, Texas A and M, Chicago, Wisconsin, Imperial, Toronto\*, Caltech, Cornell, Johns Hopkins, MIT, Purdue\*, Minnesota, ETH, Tokyo. 14.

July: Cornell\*, Texas A and M\*, UCLA, U Penn, Washington\*, ETH, Imperial, Oxford\*, Johns Hopkins\*, MIT. 10.

August: Berkeley, Cornell, MIT\*, Cambridge\*, Oxford, Imperial\*, Columbia, Johns Hopkins, Penn State, Stanford, Minnesota, Tokyo. 12.

September: Texas A and M, Michigan, Washington, Wisconsin, Oxford, Berkeley. 6.

October: Caltech\*, Johns Hopkins, Purdue, U Penn\*, Cambridge, Imperial, Oxford, Harvard\* Penn State, Stanford, Imperial\*, Kyoto. 12.

November: MIT, Princeton, Texas A and M\*, Cambridge\*, Imperial\*, Oxford, Toronto, Kyoto, Tokyo, Johns Hopkins, Purdue, U Penn, Texas, Washington, Yale. 15.

December: MIT, Penn State, Purdue\*, Texas, Washington, Cambridge, Imperial\*, Oxford, Princeton. 9.

#### 2006

January: Berkeley, Caltech\*, Michigan, Columbia, Cornell, Harvard, Johns Hopkins, MIT, Princeton, Purdue, Stanford\*, Texas A and M, Chicago, UCLA\*, Michigan, U Penn\*, Minnesota, Texas, Washington\*, Yale, Cambridge. 21.

February: Caltech, Columbia\*, Cornell\*, Johns Hopkins, MIT, Princeton\*, Texas A and M\*, UCLA\*, Michigan\*, Minnesota\*, U Penn, Texas, Wisconsin, Cambridge\*, Oxford\*, Toronto, Tokyo, Berkeley, Johns Hopkins\*, MIT, Penn State, Purdue, Stanford\*, Washington\*, Yale, ETH, Imperial\*. 27.

March: Berkeley\*, Caltech\*, Columbia\*, Cornell\*, Harvard\*, Johns Hopkins\*, MIT\*, Princeton\*, Purdue\*, Stanford\*, Texas A and M\*, UCLA\*, Michigan\*, Minnesota, Washington\*, Yale, ETH, Cambridge\*, Oxford\*, Imperial\*, Toronto\*, Kyoto, Tokyo\*, Penn State\*, U Penn, Texas\*, Wisconsin\*, ETH\*. 28.

April: Berkeley\*, Caltech\*, Columbia, Harvard\*, Johns Hopkins\*, MIT\*, Michigan\*, Princeton\*, Penn State\*, Purdue\*, Stanford\*, Chicago, UCLA,

Minnesota\*, U Penn, Washington\*, Wisconsin\*, Yale\*, ETH\*, Cambridge\*, Oxford\*, Toronto\*, Tokyo\*, Cornell\*, Texas A and M, Texas\* 26.

May: Berkeley\*, Caltech, Johns Hopkins, MIT\*, Penn State\*, Texas A and M, Michigan, Texas, Washington, Yale, Cambridge, Oxford\*, Toronto, Tokyo\*, Harvard, MIT\*, Princeton\*, Purdue\*, Stanford, Washington\*, 19.

June: Berkeley, Caltech, Johns Hopkins\*, MIT, Princeton\*, Stanford\*, Texas A and M\*, Chicago\*, Michigan\*, U Penn\*, Washington\*, Wisconsin, ETH, Oxford\*, Toronto\*, Kyoto\*, MIT, Purdue, UCLA, Texas, Cambridge\*, Oxford\*. 22.

July: Berkeley, Johns Hopkins\*, MIT, Princeton, Purdue, Stanford, Texas A and M, UCLA, Michigan, U Penn, Texas, Washington\*, Wisconsin, ETH, Oxford\*, Toronto\*, Kyoto, MIT, Purdue, Stanford, UCLA, U Penn, Texas, Cambridge\* 24.

August: Berkeley\*, Johns Hopkins\*, MIT, Princeton, Purdue, Stanford, Texas A and M, Texas, Washington, Wisconsin, Cambridge, Oxford\*, Toronto, Tokyo. 14

September: Berkeley, Caltech, Columbia, Harvard\*, MIT, Princeton, Penn State\*, Purdue\*, Texas A and M\*, Chicago\*, Washington\*, ETH, Cambridge, Oxford\*, Cornell, Johns Hopkins, MIT, Princeton, UCLA\*, Michigan\*, Toronto, Kyoto, Tokyo. 23.

October: Berkeley, Caltech\*, Harvard, MIT\*, Penn State\*, Purdue\*, Texas A and M\*, Chicago\*, UCLA\*, Michigan\*, Minnesota\*, U Penn\*, Washington\*, Wisconsin\*, Yale\*, Imperial\*, Oxford\*, Toronto\*, Kyoto, Tokyo, Stanford, Texas, Cambridge. 23.

November: Harvard\*, MIT, Princeton\*, Penn State\*, Stanford\*, UCLA, Michigan\*, Minnesota\*, Yale\*, Cambridge\*, Oxford\*, Toronto, Berkeley, Cornell\*, Purdue, Texas A and M, Tokyo. 17.

December: Caltech, Columbia, MIT, Penn State\*, Texas A and M, Michigan, Wisconsin, Washington, Cambridge\*, Tokyo\*, Johns Hopkins, ETH, Imperial\*. 13.

#### 2005

January: Yale\*, Kyoto\*, Berkeley\*, Princeton\*, Imperial\*, ETH\*, UCLA, Michigan, Harvard\*, Chicago\*, Washington\*, Stanford\*, Oxford\*, U Penn\*, Toronto\*, MIT\*, Caltech\*, Purdue, Cambridge\*, Penn State\*, Texas, Cornell, Imperial\*, Wisconsin\*, Washington. 25.

February: MIT\*, Chicago\*, Minnesota\*, Yale\*, Oxford\*, Michigan\*, Cornell\*, Texas\*, Texas A and M, Tokyo\*, UCLA, Toronto\*, Stanford\*, Columbia\*, Penn State\*, Cambridge\*, Havard\*, Caltech\*, Washington\*, Imperial\*, Princeton\*, Johns Hopkins\*, Purdue\*, U Penn, MIT, Wisconsin. 25.

March: Berkeley\*, Washington\*, Kyoto\*, Cambridge\*, ETH\*, Michigan\*, U Penn, Texas\*, Wisconsin\*, Oxford\*, MIT\*, Princeton\*, Toronto\*, Harvard\*, Purdue\*, Stanford\*, Caltech\*, Cornell\*, Penn State\*, UCLA\*, Wisconsin\*, Columbia\*, Cornell\*, Columbia\*, Imperial\*, Johns Hopkins\*, Texas A and M\*, Chicago 27.

April: Toronto\*, ETH\*, Caltech\*, Princeton\*, Michigan\*, Wisconsin\*, Oxford\*, Cambridge\*, Imperial\*, Johns Hopkins\*, MIT\*, Yale\*, Chicago\*, Purdue\*, Washington\*, Cornell\*, Stanford\*, UCLA\*, Berkeley\*, Minnesota\*, Columbia\*, Texas A and M\*, Texas\*, Tokyo, Harvard\*, U Penn\*, Penn State\*. 26.

May: MIT\*, Cambridge\*, Toronto, ETH\*, Caltech\*, Michigan\*, Berkeley\*, Columbia\*, UCLA\*, Cornell\*, Harvard\*, Yale\*, Penn State, Imperial, Stanford\*, Purdue\*, Kyoto\*, Washington\*, Oxford\*, Texas, Chicago, Minnesota, U Penn, Johns Hopkins, Tokyo, Wisconsin\*, Texas A and M\*, Toronto 28.

June: Berkeley\*, Cornell\*, MIT\*, Texas A and M\*, Washington\*, Yale\*, Imperial\*, Toronto\*, Princeton\*, Stanford\*, Michigan\*, Texas, MIT\*, Oxford\*, Cambridge\*, Columbia, Kyoto\*, Caltech\*, Johns Hopkins\*, Tokyo\*, UCLA, ETH, Michigan\*, U Penn\*, Texas, Harvard\*, Penn State\*, Purdue\*, Minnesota. 29.

July: Berkeley\*, Cornell\*, MIT\*, Texas A and M\*, Washington\*, Yale\*, Imperial\*, Toronto\*, Princeton\*, Stanford\*, Michigan\*, Texas\*, MIT\*, Oxford\*, Cambridge\*, Columbia, Kyoto\*, Caltech\*, Johns Hopkins, Washington\*, Tokyo\*, UCLA, ETH, Michigan\*, U Penn\*, Toronto\*, Harvard\*, Penn State\*, Purdue\*, Minnesota, 29.

August: Caltech\*, U Penn, Imperial\*, Columbia, Johns Hopkins\*, Stanford\*, Minnesota\*, Texas, Washington, ETH, Wisconsin, Cornell, Harvard, Berkeley, Penn State, Texas A and M, Tokyo, Cambridge\*. 18.

September: Columbia, Harvard\*, MIT\*, Penn State\*, Purdue, Stanford, U Penn\*, Texas\*, Washington\*, Cambridge\*, Oxford\*, Cornell, Michigan, Minnesota\*, Imperial, Caltech, Princeton, Texas A and M, Michigan, Yale, ETH, Tokyo. 22.

October: Cambridge, Oxford\*, Imperial, Berkeley, Caltech, Michigan\*, Columbia\*, Harvard, MIT, Princeton, Penn State, Stanford, Texas A and M, Chicago, U Penn, Texas\*, Washington, Wisconsin, Yale, Tokyo, Toronto. 21.

November: Cambridge\*, Imperial, Oxford\*, Toronto, Berkeley, Caltech, Michigan\*, Columbia, Cornell, Harvard, Johns Hopkins, MIT, Princeton, Penn State, Stanford, Texas A and M, Texas, Chicago, UCLA, Minnesota, U Penn, Washington, Wisconsin, Yale, ETH. 24.

December: Berkeley\*, Caltech, Columbia\*, Cornell\*, Harvard\*, Johns Hopkins, MIT, Princeton\*, Texas A and M, UCLA\*, Michigan\*, Minnesota\*, U Penn, Cambridge\*, Oxford\*, Imperial, Kyoto, Stanford, Washington, Yale, ETH. 21.

2004:

April 30<sup>th</sup>: Purdue, Cambridge.

May: Michigan\*, U Penn, Wisconsin\*, Penn State, Texas A and M, Chicago, Texas\*, Cambridge\*, Berkeley\*, Caltech\*, MIT\*, Columbia, Cornell\*, Harvard\*, Yale, UCLA, Kyoto, Washington, Tokyo\*, Oxford\*, Penn State, Stanford, Princeton. 23.

June: UCLA\*, Washington\*, Cambridge\*, Imperial\*, Stanford\*, Oxford\*, Chicago, Berkeley\*, Columbia, Johns Hopkins, Purdue\*, Tokyo\*, Penn State, Kyoto, ETH, Harvard, MIT\*, Caltech, Minnesota. 19. French presidential staff on 29/6/2004.

July: Cambridge\*, Imperial, Oxford\*, Purdue, Washington\*, Tokyo\*, ETH\*, Princeton\*, Yale\*, Michigan\*, Stanford\*, Harvard\*, Berkeley, Wisconsin\*, MIT\*, Chicago, Minnesota, Texas A and M, Yale, Penn State, Tokyo. 21.

August: Michigan\*, Harvard, Columbia\*, Yale, Purdue\*, Stanford\*, MIT, Washington, Princeton, Chicago, Imperial\*, Cambridge\*, Caltech, ETH, Penn State, UCLA, Berkeley, Texas, Kyoto, Oxford. 20.

September: Johns Hopkins\*, Michigan\*, Purdue, Texas A and M\*, Stanford\*, Columbia\*, Wisconsin\*, Cornell\*, Berkeley, MIT, Toronto\*, Purdue\*, U Penn, Princeton, MIT, Kyoto, Caltech\*, Penn State, Chicago, Harvard. 20.

October: Harvard\*, Michigan\*, U Penn\*, Caltech\*, MIT, UCLA, Toronto\*, ETH\*, Stanford\*, Cambridge\*, Oxford\*, Imperial\*, Columbia\*, Texas, Berkeley\*, Johns Hopkins, UCLA, Purdue\*, Yale\*, Washington, Kyoto\*, Texas A and M, Minnesota. 23.

November: Columbia\*, Harvard\*, Michigan\*, Chicago\*, Texas\*, Caltech, Stanford\*, Tokyo\*, Cambridge\*, Oxford\*, MIT\*, Minnesota, Princeton\*, Purdue, U Penn, Johns Hopkins, Berkeley, Imperial, Yale, ETH\*, Penn State. 21.

December: Columbia, Johns Hopkins\*, MIT\*, Chicago, Michigan, U Penn, Imperial\*, Oxford\*, Harvard\*, Penn State\*, Texas\*, Toronto, Cornell, Princeton, Yale, Wisconsin, Tokyo, ETH, Purdue. 19.

### 2. HISTORY OF ECE THEORY

Volume One of "The Book of Scientometrics" narrates the history of ECE theory from inception in March 2003 to the point at which some fringe dogmatists started their campaign to destroy the theory. There is no way in which the theory can be refuted without refuting Cartan geometry itself. This is because the basic hypotheses translate the geometry into physics directly. For example the Cartan tetrad multiplied by a scalar denoted A(0) becomes the electromagnetic potential, the Cartan torsion multiplied by the same scalar A(0) becomes the electromagnetic field. The same procedures apply in gravitation as described in UFT303 on www.aias.us. - "The ECE Engineering Model" compiled by Horst Eckardt. This puts together all the main equations of ECE theory. This loonie fringe of never more than three or four unpleasant people has been completely forgotten in an overwhelming tide of international interest and support for ECE theory, but at the time they were obnoxious, using illegal methods and violations of human rights such as harassment and abuse by e mail and stalking, and in the worst cases intimidation, pejorative abuse and trolling threats. This does not look very much like the School of Athens by Raphael, more like an ugly street fight, or all time low in physics. None of it has had any effect on the profession or on the march of ideas.

The first sign of trouble started in the early stages of ECE theory when the first papers were being refereed and published in van der Merwe's "Foundations of

Physics Letters". The first fifteen UFT papers were published in this journal, refereed about forty times in all. Each paper was refereed at least twice, sometimes three times, and each one was read and copyedited personally by van der Merwe. The latter is of course a considerable intellect in his own right, a Victoria Scholar with two Ph. D. s from Amsterdam and Bern. He was and is a vastly experienced and highly regarded editor, receptive to new ideas. He kept ECE theory alive until the first www.aias.us website was built by Bob Gray in May 2002. In 2004 he was instrumental in persuading the Royal Society of Chemistry and Royal Society to nominate me for a Civil List Pension. This was awarded in February 2005 with the support of Prime Minister Tony Blair. It is an appointment and high honour made directly by the Head of State, Oueen Elizabeth II, and defined in an Act of 1837. It is much older than Order of Merit, Companion of Honour or the Nobel Prize and past recipients include Newton (as the roughly equivalent Warden and Master of the Mint), Herschel, Dalton, Faraday, Joule, Hamilton and Heaviside. In literature they include Byron, Wordsworth, Tennyson, Yeats, Joyce, W. S. Graham and Vernon Watkins. The Act of 1837 defines the pension as being awarded as a token of the gratitude of the Monarch and the countries of Great Britain, formerly Great Britain and Ireland, for most distinguished services rendered in literature, music, the arts and science. The other two referees were Prof. Bo Lehnert, a Member of the Royal Swedish Academy, and the late Prof. John B. Hart of Xavier University in the United States.

My appointment as Civil List Pensioner delighted my colleagues, family and friends. This is the psychologically healthy response. The psychotic or unhealthy response is all too familiar down the ages, especially as the appointment was voted in by Act of Parliament, so there can be nothing going on in smoke filled rooms. It is something similar to a Supreme Court appointment in the United States. That has to be voted in by Act of Congress and proposed and ratified by the President. In Britain the vote in Parliament is followed by the Royal Assent. So I put the sign manual of Queen Elizabeth on my <a href="www.aias.us">www.aias.us</a> website - Elisabeta Regina. She is my distant Tudor cousin. Oliver Cromwell was also my ancestral Tudor cousin, so we keep minor disagreements like Civil Wars in the family. I am a Leveller by

intellectual descent and a United States dual citizen, the first to be appointed a Civil List Pensioner. So this truly delighted the fringe zealots and they began a campaign of what can only be described as a frenzy of hatred. I have still never met those who made themselves known, and hope never to meet them. This is a typical paranoid psychosis at which hatred resonates against a perceived symbol of all evil. Ethnic prejudice is a prime example.

I started recording the Book of Scientometrics Volume One on April 30<sup>th</sup> 2004, and the above synopsis of study visits in Section 1 of this volume two shows that the staffs and students of the top twenty nine universities in the world were already studying the theory regularly, and had been since inception of the theory in March 2003. It first surfaced through postings on the new website www.aias.us with the help of Bob Gray and Sean MacLachlan, the first two webmasters. They work for Biophan and Hewlett Packard respectively, two leading corporations in the United States. Sean posted simultaneously on his new www.atomicprecision.com website, and later on www.upitec.org. The postings of preprints were followed by publication in "Foundations of Physics Letters" after refereeing and copy editing by van der Merwe. The first ECE paper, UFT1, appeared in late 2003 in "Foundations of Physics Letters". The vast amount of scientometric data now available show beyond doubt that the ECE theory made an immediate and unprecedented, delta function impact, a meteoric impact on the old standard model of physics. It soon became apparent that essentially all the university and institute study readings of the UFT papers came from the best two hundred or so universities and institutes in the world. The above Section 1 shows that throughout 2004 and in to 2005, staff and students from all twenty nine best universities in the world regularly studied the new ECE theory. The asterisk \* in Section 1 denotes repeated distinct visits, and so denotes many actual readings. The exact number of readings of ECE theory can be estimated to be of the order of fifty million or more. Furthermore, it is overwhelmingly likely that staffs and students use private computers to study ECE all the time. The Book of Scientometrics can only record public URL's and is confined to only 2% of the unimaginably vast readership of the theory. This 2% is confined to what I think is the intellectual elite

around the world: universities, institutes, government departments, large corporations, organizations, scientific societies, military installations and so forth. So the scientometrics are very carefully filtered and have accumulated over eleven years of daily recording overwhelming international confidence in the ECE theory. The standard modellers have accepted ECE themselves, otherwise the best of them would not have been studying it all the time for eleven years. The trouble was caused by a tiny group of unknown mediochrities who took it upon themselves to "represent" the standard model. This kind of deeply hostile personal animosity first surfaced after the B(3) field was first nominated for a Nobel Prize in t e early nineties. I have been told about the nominations, the Nobel prize process is supposed to be confidential but leaks like a sieve. My nominations for the Wolf and Milner prizes and the Priestley and Copley Medals and so forth are in the public domain. My nominations for the Civil List Pension are of course well known. These are nominations made by able, sincere, knowledgeable and hard working scholars who know my work best. The first attacks on B(3) were engineered by Buckingham (an unwelcome acquaintance of mine right back to the seventies) and his associate Barron. These have been long forgotten but the type of small minded people who indulge in this kind of unscientific behaviour keep on working behind the scenes, so they resurfaced in about 2004 when it became apparent that ECE was an impeccably logical and revolutionary challenge to their dogma.

Wikipedia was launched on 15<sup>th</sup> January 2001 but I was completely unaware of it until someone drew my attention to a posting on it describing ECE theory. I recall that this was a fair and simple description and apart from that article I took little or no notice of Wikipedia. Suddenly the posting was viciously mutilated by what Wikipedia calls "moderators" who hide behind anonymity. The moderator responsible was Akhlesh Lakhtakia, an obscure professor of mechanical engineering at Penn State University, University Park. His pseudonym was "Science Guy". In the early stages of his career he had phoned me at Cornell, and I mistakenly invited some material from him. He used this to get tenure. When B(3) appeared he took a violent dislike to it and attacked it, slamming down the receiver

on reasoned argument. These early battles of the Peloponnesian War are all recorded in the Omnia Opera of <a href="www.aias.us">www.aias.us</a>. Lakhtakia was later identified by our feedback system as sending viciously abusive e mail to me using different names on a computer. He was traced to within a few hundred yards of his Department at University Park. Later he was talked to by the police for these criminal offences and impersonation of arXiv staff but somehow escaped dismissal and prosecution. However he did disappear from Wikipedia. There followed the longest and fiercest battle in the short and dubious history of Wikipedia until I finally forced it to remove its complete distortion of my work and career. What is there now is a sad out dated remnant like a burnt out tank. This battle is well known and has been the subject of a conference paper, no less. The inconvenient Civil List Pension was suppressed. So Wikipedia in the wrong hands is a clear threat to democracy, reminiscent of Joseph McCarthy's destructive tendencies. The intention of these anonymous assassins was to destroy ECE and if possible, all remnants of my past existence.

In this it failed in the most spectacular manner imaginable. However back in 2004 and 2005 I began to receive warning messages from van der Merwe that he was under pressure from the new management of his journals and books, Springer. This was the first sign of a massive e mail assault on both ECE and van der Merwe as a dissident editor. It all took place behind the scenes in an entirely less than chivalrous way. The main hit man was a completely obscure professor of mathematics called Gerhard Bruhn, who retired hurt in 2008 after being hit in turn by a bouncer, the one hundred and second Bruhn refutation I think. I write this in humour now, but at the time it was a street fight like any other. It turned out years later that Bruhn has an h index of about unity, not enough for an O level, and most of his papers consisted of attacks on yours truly. It was quickly apparent that he was a pseudoscientist. Some think that he was paid for his ugly work, but I think he just carried a chip on his shoulder as large as an oak tree. In 2008 he suddenly disappeared entirely having tried to do as much damage as he could by malicious misrepresentation of Cartan's geometry. From a study of section 2 of this volume two it has lately become apparent that all of Bruhn's frenzied, flailing, quixotic

assaults were totally ignored and are still being totally ignored, by the best in the world.

The editors of that time could or would not see through him because they were incompetent in Cartan geometry. It is time to call a spade a spade. It was easy to see through him because he was attacking a well known, ninety year old geometry - Cartan's elegant geometry. He was attacking the same geometry as taught in the later pages of chapter three of Carroll's "Spacetime and Geometry: an Introduction to General Relativity" (Addison Wesley 2004, online notes). ECE theory is based directly on this well known geometry, taught everywhere. So a bona fide professor of mathematics would never have behaved like that. That alone should have been enough to alert editors to the fishy truth. The even fishier truth is that they often do not know what they are publishing and rely on hearsay, known as referees' reports that are little more than one liners, a knee jerk in anonymity. Al l of that has been blown apart by the AIAS method of education and research. AIAS brings everything out into the open and relies purely on merit alone. That type of fishy editor is a thing of the past. I think that Bruhn e mailed everyone in the solar system, including the devil himself who sent him a red hot rebuttal. He e mailed the Queen, who was not amused, of course she never got the bile. He e mailed the Welsh Assembly, "The Western Mail" and all concerned. This was harassment in the first degree and malicious misrepresentation, but the authorities were far too weak or bored or defeated to act. This is how a totalitarian regime gets underway, when the police fail to act against criminals. This is how the age of trolling began, the trolls of Animal Farm threaten to destabilize the whole of human society.

At about the same time in 2004 the editors of World Scientific and Kluwer buckled to their eternal shame to this early kind of trolling. World Scientific breached contract on what was to become "Generally Covariant Unified Field Theory" (Abramis Academic 2005 to 2011 in seven volumes softback and online on www.aias.us). This was an atrociously cynical violation of a signed contract, within weeks of the finished book going to press I was suddenly told that "management" had stopped the publication, and that was all. Basically, the author could go to hell. The so called "management " of World Scientific had been

pounded by e mails from Bruhn, and probably from Lakhtakia and others, including Rodrigues another delightful, long time friend of mine. As usual for megapublishers chasing profit, the editors, and least of all the "management" never read anything, in that era the author was obliged to do all the work and the publisher took nearly all the profit. Various publishing houses have probably made a million out of me. Simultaneously World Scientific breached contract on my Omnia Opera, the entire series of up to about twenty volumes, was dumped by "Management" even though the contract had been signed and finalized. It has now been published open source on <a href="www.aias.us">www.aias.us</a> in the Omnia Opera Section, which has been read intensively around the world since it began to be constructed. These illegal breaches of contract took place because some obscure, bitter psychotics had e mailed them in anonymity. Obviously the cynical old system was rotten to the core.

It collapsed entirely with the knowledge revolution of the past fifteen years or so. I realized as the contracts were being ripped to shreds around me that I had to get away from the dead hand of cynical profiteering, the enslavement of honest intellect for a few pieces of tarnished silver, the royalties. As the UFT series began to get under way in 2004 and 2005, Section 1 shows clearly that it immediately attracted interest at the best twenty nine universities in the world, currently led on the webometrics world rankings by Harvard, MIT, Stanford and my own former University, Cornell. The interest peaked in June and July 2005, just after I was appointed Civil List Pensioner, a worthy successor to people like Newton, Dalton, Faraday, Joule, Hamilton and Heaviside. The scientometrics obviously show that the colleagues in these universities saw it in that way and continue to do so. There was none of the dark, psychotic, destructive hatred and deception of a Lakhtakia or Bruhn. In June and July 2005 there were repeated visits from all the twenty nine universities in the Webometrics and THES top twenties of Section 1, and as volume one of "The Book of Scientometrics" shows, a massive tide of study visits from approximately the best two hundred universities in the world and several hundred more from other universities. At that point the standard model of physics collapsed entirely. It is still taught, but it is known to be riddled

with errors and weakness which render it all but useless. It has wasted billions in funding at a time when an all out effort is needed to find new sources of energy. It has wasted the talent of thousands of graduates and post doctorals

In the middle of this carnage, ripped up contracts littering the carpet, some of the most enlightened and able scientists in the world kindly offered to help get me a Civil List Pension, and I was notified of this by the Prime Minister's Office in 2004. All the Civil List correspondence is on the www.aias.us website. The long and detailed support letter from van der Merwe as a referee must have made a great impression. I believe that the nominators were the Royal Society of Chemistry and The Royal Society, either one of them or both. I am not entirely sure. At about that time Gianni Giacchetta of the University of Capetown in South Africa took over the work of improving www.aias.us, and shortly afterwards David Burleigh, the Chief Executive Officer of Annexa Inc. volunteered to run the site and to post voluntarily. This was one of the key turning points up to 2005 which swung the tide of battle in favour of ECE Theory. Papers could be written and published open source without censorship and the scientific community would decide whether they were good or bad, not a cynical, knee jerking one liner worshiping the idols in a dark cave. Nearly all those early censors have been proven to be so wrong that it now seems unbelievable that such a system ever existed, a system in which good work could be trashed for no reason.

I could at last have the unbridled freedom of developing my thoughts without mindless interference. My intent in developing ECE theory was to cover as much of physics and chemistry as possible, but soon the electrical engineers also took a serious interest in the theory. During the whole of this time, and right up to 2008, Bruhn kept hammering away in a completely illegal way but could have no further effect. He had lost the power to intimidate.

In about 2005 I was asked by civilians at the United States Navy in Florida to produce a theory to explain a giant resonance effect in a circuit demonstrated to them by the Alex Hill group (<a href="www.upitec.org">www.upitec.org</a> and <a href="www.et3m.net">www.et3m.net</a>). I was e mailed by John Shelburne, who used biblical hyperbole to describe the effect that the circuit had on him, Saul turned to Paul. So I simply produced an

Euler Bernoulli structure out of the ECE field equations to infer what became known as spin connection resonance. This theory was later developed by Horst Eckardt and Douglas Lindstrom in UFT292 to UFT299, the Eckardt / Lindstrom papers now read thousands of times a year off <a href="www.aias.us">www.aias.us</a>. I tried repeatedly to bring the British Government's attention to these developments but at that time was met by a wall of torpid cynicism, the usual indulgence of well paid bureaucrats with little to do. For a long time before that, various approaches had been made to me by protagonists of so called "free energy". I had innocently stepped into another war, just as I did with B(3). Their overall intent was to find a new source of unlimited energy without any side effects of pollution. As someone who had grown up in the carnage of the South Wales coal field this seemed to be a good idea. However I quickly found that this area was saturated with incomprehensible nonsense physics, amid many accusations and counter accusations of fraud. So no prominent scientist would go near it. It was very slow to develop and was bogged down in endless recrimination and counter recrimination.

The only bright spark in this cave full of sabre toothed idols seemed to be Albert Collins, who pointed out to me the work of Alex Hill and colleagues in Mexico. By now, the Alex Hill company routinely sells spacetime energy devices to well known corporations. They can be seen on www.et3m.net and www.upitec.org and anyone can go to see the devices at work in perfectly respectable industry. Large, successful corporations, are not known for tolerating humbug or junk that does not work, they are too interested in profit. With the memory of the coal field always in mind (Autobiography Volume One above my coat of arms on the home page of www.aias.us) I proceeded to try to make sense of these claims of "energy from the vacuum" and quickly realized that the vacuum must be spacetime. From March 2003 onwards it was spacetime defined by ECE theory. Various UFT papers were dedicated to this and the most advanced stage of the ECE vacuum theory is found in UFT292 to UFT299 by Horst Eckardt and Douglas Lindstrom. Energy is contained in spacetime and can be transferred to a circuit. It took almost a decade to find the circuit design, but this is now available in UFT311, currently being read over a thousand times a year off www.aias.us.

The many claims of energy from the vacuum attributed to Tesla have been dismissed by AIAS. Those few details available of Tesla's circuits do not produce anything that cannot be explained by Maxwell Heaviside theory. Tesla's important contributions were to other aspects of electrical engineering, and the whole of electrical engineering can be attributed to him. However, he did not produce energy from spacetime. The circuit in UFT311 does produce energy from spacetime and its details are known. I was asked by Shelburne to explain a circuit of which I was given no detail at all. No other scientist of any note would have bothered, but I always had that aim in mind of freeing humanity from the dark satanic galleries - the coalfields. It is exceedingly dangerous for a prominent scientist to step into a war, especially when there are no data available at all. This is hardly Baconian. However I was always encouraged by the fact that Alex Hill is an obviously sincere man who has greatly helped to develop the www.aias.us website by typesetting and Spanish translations. So ECE is now known all over the Spanish speaking scientific world. Alex Hill has also been steadfast under vicious trolling attacks, emanating from the criminal gutter of society. At present the authorities cannot control trolls, but in future I hope to see them in prison, otherwise the fabric of society will be destroyed from within, and it will fall like the Roman Empire.

The ugly nature of the free energy war soon became apparent when yet another anonymous letter dropped on to my doormat around about this time. I get so many anonymous things that I feel quite touched. This was a letter from a student at Bristol University warning me of a conspiracy to try to get my Civil List Pension removed. This conspiracy was in contempt of Crown and Parliament, equivalent to contempt of Court, and was soon crushed with the help of Prof. Bob Evans, F. R. S. My ancestral cousin Henry VII "The Winter King" would have been entirely at home with such happenings, Perkin Warbeck, Lambert Simnel and assorted others. To some he was always the Tudor usurper and the Yorkists frequently questioned his parentage and ancestry in more ways than one. He was in fact descended from my own direct ancestor, Prince Tewdwr Mawr ap Cadell of the Royal House of Dynefor. The latter's ancestors in turn included nearly all the prominent ancient British Kings, who wandered around Britain long before the

Normans and assorted others were heard of. This is all in the very popular genealogy section of <a href="www.aias.us">www.aias.us</a>. Conspiracy is as healthy as ever, or more accurately, as psychotic as ever. In this particular Bristol happening I was told that a meeting was organized to accuse me of advocating "perpetual motion", a garbage minded knee jerk. Energy is obviously transferred from the ECE spacetime to a circuit, exactly as in UFT311, a process known in physics since the early forties - the radiative corrections. Total energy is conserved. The same process occurs in low energy nuclear reactors (LENR, UFT226 ff.) This conspiracy was a carbon copy of UNCC and had the same effect - to generate eternal disgust and contempt within the profession. The Book of Scientometrics Volume One (UFT307) shows clearly that such winter conspiracies never hid the sun of glorious enlightenment. Following upon the sunrise of ECE theory, the Patent Offices accept patents on these devices, they are no longer banned as being due to "perpetual motion".

Laurence Felker began to correspond at about this time. He is a well known lecturer in California and Nevada and an engineer by training, and writes well. He has contributed a great deal to the ECE theory through his book "The Evans Equations of Unified Field Theory" which first appeared on the www.aias.us website and became an immediate success. I began to realize the immense power of the AIAS publishing method, and of the knowledge revolution. Instead of trying to enslave or censor authors it tries to bring knowledge to all who want it. All they have to do is read the website, and they do so tens of millions of times. No ugly minded and irrational conspirator lurking in the cesspit of anonymity can stop the tide of reason, the march of ideas. Gradually the book developed and it was eventually published by Abramis Academic in 2007 as a softback in the traditional way. It is now available open source on www.aias.us and has been translated into Spanish by Alex Hill, in fifteen chapters in the Spanish section of www.aias.us. It has made a huge impact worldwide, especially chapter three in Spanish. It also contains a useful glossary. It is very popular in English, and much more so in Spanish, even though the same material is being read in different languages. So in my opinion the three AIAS websites, www.aias.us, www.atomicprecision.com and www.upitec.org, could be translated into other languages, the more the better. The

open source method of AIAS publishing completely outpowered Abramis, and in a way, book publishing is obsolete.

Laurence Felker was harassed continuously by Gerhard Bruhn, who committed thousands of offences of harassment before suddenly disappearing in 2008. Years later I was told that he had become ill from the stress of being a pain in the deleted expletive and years later I found that he has a pitifully low h index. He must have been appointed in a smoke filled room long ago. Felker stood up to Bruhn with my help, and pressed ahead with his book. Many hundreds of thousands of readers of "The Evans Equations" are thankful to Laurence for his perseverance, especially as Bruhn always gave the impression of authority. It was quite easy to unravel the fraud because he was attacking Cartan geometry. Sean Carroll would never be attacked because he was too prominent. Carroll and I use exactly the same Cartan geometry so that is enough to show that it was all a Perkin Warbeck. Gradually Felker got the better of Bruhn and the book was published in 2007.

Laurence Felker mentioned to me one day that he was working with an able electrical engineer called Horst Eckardt, and introduced me to his Munich environment. Before that time I had been working on the ECE papers essentially on my own and had begun to derive all the key equations of physics and chemistry, my own subject. The first paper to be co authored by Horst and myself was UFT61 on spin connection resonance in the Coulomb law, which benefitted from computer algebra in two ways. It was used to check my derivations and also to work out complicated algebra. This method has been continued to this day, and at the time of writing (April 12<sup>th</sup> 2015) there are 311 papers and books in the UFT series, with many other items by Horst Eckardt and other AIAS colleagues. The Maxima program has been used to great effect in the great majority of papers and books since UFT61, in checking the algebra, graphical analysis and so on. This Book of Scientometrics shows that the overwhelming majority of the best in the world has accepted this methodology wholeheartedly. There can be no doubt about the correctness of the algebra, so the authors can concentrate on the concepts. The only area in which Maxima cannot be applied is differential form and tensor algebra. So from the outset of the UFT series I constructed proofs giving far more detail than Carroll, and developing Cartan geometry on my own. This is also an ideal way of demonstrating the elegance of the Cartan geometry, a prime example being the Cartan identity, or first Bianchi identity with torsion.

Horst was also interested in the possibility of energy from spacetime, so the subject of spin connection resonance started to develop. Working together like this we built a wall of rebuttal against Bruhn. It soon transpired that he was working with the Nobel Laureate 't Hooft, who "replaced" van der Merwe as editor of "Foundations of Physics Letters". So for the first time it became clear that the standard establishment was behind the illegal harassment. It was illegal because Bruhn would ignore polite requests not to send e mail - harassment in the second degree in almost all laws. So after rebutting him many times I blocked him electronically. The rebuttals have been heavily studied for years off of www.aias.us. It very quickly became apparent that neither Bruhn nor 't Hooft were competent in the Cartan geometry as available in all textbooks for ninety years. In Bruhn's case it became obvious that he was deliberately using false mathematics, and the precise points at which he began to do so could be pinpointed with only a little effort. In 't Hooft's case it was pure arrogance, mixed with almost complete incompetence in Cartan geometry. All this is very similar to the way in which Einstein was attacked by the Nobel Laureate Stark and others. Einstein just managed to escape the Gestapo, through The Netherlands into Britain, then to Princeton. At that time German Socialists and Communists and anyone who opposed the Nazi regime were beginning to be rounded up. In the Soviet Union Jo Stalin almost purged the country out of existence and killed millions of innocent people. Similarly this group of zealots wanted to purge physics of new ideas that have made a tremendous impact and which have reduced the old physics to rubble. The irrationality of the new "editor" 't Hooft quickly became apparent when he tried to "unpublish" the first UFT papers, thereby dismissing the authors, his eminent predecessor, and all forty referees by mediaeval decree. This Book of Scientometrics shows clearly that 't Hooft was ignored by entire professions, by literally hundreds of thousands of colleagues who had focused their attention on the <u>www.aias.us</u> site, and not on him. Despite the vast readership of ECE theory 't Hooft has remained sarcastic and personally very hostile to myself as British Civil List Pensioner, a higher State honour than a Nobel Prize.

It is obvious that 't Hooft has been discarded by the profession because the scientometrics (UFT307 on www.aias.us) have remained steady at a very high plateau of interest despite these deeply offensive and underhand personal attacks by a group consisting of 't Hooft, Rodrigues, Bruhn and Lakhtakia. They offend the profession, Crown and Parliament much more than myself, and they offend the truth by trying to misrepresent a well known geometry. The only remnant remaining of these attacks is the sordid Wikipedia entry designed purely to misrepresent ECE theory. Essentially it tries to obfuscate Cartan geometry itself using false mathematics. This is a foolish thing to try to do, and only those deluded enough by arrogance would attempt to do it. It is of course illegal - a scientific fraud. They must think that the colleagues have no intelligence and no integrity. From its very outset in 2001 Wikipedia has been heavily criticised for trying to destroy the careers of those to whom it takes a personal dislike. This is a carbon copy of McCarthyism and uses the same blacklisting methods. It was easily seen through by the profession for this reason. These people have therefore been severely condemned by history and these underhand methods frequently used by the standard modellers have been soundly defeated by the open source method. This is a sea change in the way in which physics is taught. Ideas can no longer be destroyed in anonymity by a vindictive and incompetent few. People may agree or disagree with ECE theory but its impact is undeniable. For this reason alone it will go in to the history books. The tide of sustained interest in ECE theory means that the standard model is obsolete beyond doubt, simply because everyone knows its errors and glaring weaknesses. If funding, jobs, prizes and tenure were assessed by high quality scientometrics as available in UFT307, The Book of Scientometrics Volume One, the entire landscape of prominent science and scientists would be changed utterly. At present such things are controlled by often vindictive dogmatists, which explains why the ECE theory is studied in private by essentially

the entire physics profession. Those who try to intimidate ossify progress and try to enslave the intellect.

Never in the history of physics or indeed of science has a dogmatic elite been so completely rejected in its own lifetime.

I decided on 30<sup>th</sup> April 2004 to keep an accurate history of the interest in ECE theory, otherwise the obsolete dogmatists would always claim that the theory never existed. The Wikipedia episode shows clearly enough that the old dogmatists were capable of censoring everything, even a complete and well known career, even an appointment by the Head of State, even one of the highest State honours, degrees, over a thousand publications which they never read, honours and awards, the whole lot. This makes Jo Stalin or Jo McCarthy look impeccably open minded. It has became ever more apparent that essentially the entire profession studies ECE theory all the time with the new open source method. These scientometrics are as important as the science, especially as the ECE theory began to branch out in more directions and began to produce definitive refutations of the Einsteinian general relativity and essentially every concept of the old twentieth century physics. Alwyn van der Merwe's famous journals had been barbarically destroyed and a yes man installed in his place, but the ECE theory was not destroyed. The Book of Scientometrics shows that it will be a permanent and most prominent feature of the science landscape for the foreseeable future. The early attacks on ECE were of course illegal, they were a form of trolling and harassment and intimidation, a street fight like any other. In historical terms they were the last gasp of cynical dogmatism. This tiny group sought to misrepresent the profession as well as ECE and myself and failed spectacularly as they were bound to do.

The method of checking calculations with computer algebra worked very well, and gradually many proofs were added to the UFT series that clarified and extended the short synopsis of Cartan geometry given in Carroll's chapter three of "Spacetime and Geometry: an Introduction to General Relativity". In UFT85 for example an entirely new approach was taken to the radiative corrections, and it was shown that there are astonishing inconsistencies in the Standards Laboratory Data. From inception of ECE theory I had considered the Aharonov Bohm effects

and associated concepts from the point of view of geometry, the first structure equation of Maurer and Cartan. This allows a potential to exist without a field being present. By now UFT85 has been greatly extended by Eckardt and Lindstrom in UFT292 to UFT299. It also began to become clear that all the UFT papers are studied, giving great confidence in the theory. I discarded gauge theory in UFT71. Up to that point I had accepted gauge theory in my attempts at incorporating the B(3) field into electrodynamics. These are recorded in the Omnia Opera of www.aias.us from about 1993 onwards to 2003.

By carefully expanding out the differential form notation of Elie Cartan I began to realize that the geometry used by Einstein could not have been correct. I am an admirer of Einstein's imagination, but his mathematics were sometimes flawed. This is well known to scholars. To the general public he is an idol of the cave, something he would never have wanted himself. In particular the second Bianchi identity of 1902 is not correct because torsion is not considered. This is bad news for the Einstein field equation of 1915 because it is based directly on the 1902 second Bianchi identity. So I set out to correct the 1902 second Bianchi identity in what has become a famous paper, UFT88. I invited Horst Eckardt as co author and as usual the checking method with computer algebra was applied. The final format of the second Bianchi identity of UFT88 is given in Eq. (105) of UFT255. The latter is the correct second Bianchi identity with torsion. The correct first Bianchi identity with torsion is given in Eq. (106) of UFT255. This is the Cartan identity in tensor notation. These results are reviewed in the first chapter of "Principles of ECE Theory" (UFT281, translated into Spanish by Alex Hill, with delightful illustrations). Einstein can be excused from 1905 to 1915 because torsion was not known. The only concept known at that time was curvature. Einstein also found Riemann geometry to be very difficult. He was not a particularly good student at ETH, probably because he was too interested in originality. The 1915 field equation was immediately criticized and essentially refuted by Schwarzschild in December 1915, in a letter translated by Vankov and available on the web. This fact will not be found in the standard textbooks. Vankov also rejects the 1915 paper by Einstein in which the field equation was introduced. It was also criticized by Schroedinger and Bauer in 1918.

So the scene is set for the inference of torsion by Elie Cartan and his group in Paris in the early twenties. Torsion is defined by the first Maurer / Cartan structure equation, and curvature by the second structure equation. As shown in UFT99, both structure equations are generated simultaneously by the commutator of covariant derivatives in any mathematical space of any dimensionality. This fact has actually been well known to mathematicians for years, and the relevant commutator equation is given by Carroll in his chapter three. As usual Carroll's proof, although correct, is far too condensed to be useful. So I gave all detail of it in UFT99. Every mathematician agrees that torsion cannot be ignored. Torsion is as fundamental to any geometry as is curvature. Cartan pointed this out to Einstein in a famous correspondence of the twenties, but it took until UFT88 for torsion to be incorporated in the second Bianchi identity. Einstein's dogmatic followers ignored the fact that their second Bianchi identity and field equation did not have torsion in it. Gradually torsion was forgotten, leading to complete disaster for twentieth century general relativity. It failed spectacularly when the velocity curve of a whirlpool galaxy was discovered experimentally. The reason why is given in UFT281, Einsteinian general relativity leads to a velocity curve that goes to zero at infinite distance from the galaxy centre. The experimental data go to a plateau. The latter is easily produced by ECE theory, based on torsion. This Book of Scientometrics shows intense interest in these facts, but they continue to be covered up by the dogmatists who control Animal Farm. That is the opposite of Baconian science, it is cynicism verging on fraud, because large amounts of tax money are wasted deliberately on the Einstein theory.

The year 2006 was notable for the construction of the diary or weblog ("blog") of <a href="www.aias.us">www.aias.us</a>. This was a cooperative effort involving Gianni Giacchetta, Sean MacLachlan, Horst Eckardt and others. The entries on the current blog archives go back to Dec. 2006. The blog currently reaches 179 countries and set a new record high last year. Michael Jackson and Dave Burleigh do invaluable work in archiving it at on <a href="www.webarchive.org.uk">www.webarchive.org.uk</a>. At first I thought it to be a

curiosity, but now it is centrally important, with over twenty one thousand postings. At around that time I began to edge towards a complete rejection of Einsteinian general relativity, a bold kind of surgery, but one which was wholly needed. It suddenly occurred to me in papers such as UFT122 up to UFT139 that the connection in geometry must take the same antisymmetry as the commutator. This is blazingly obvious in retrospect, and shows that torsion must always be non - zero. Proofs One to Six and UFT139 demonstrate the antisymmetry in a way that the entire profession has studied for years. At that point van der Merwe's post Einstein paradigm shift took centre stage. The entire development of Einsteinian relativity now collapsed, because it was all based on a symmetric connection introduced arbitrarily in the nineteenth century by Christoffel. UFT122 to UFT139 show that a symmetric connection means a symmetric commutator. A symmetric commutator is zero, so both torsion and curvature vanish and there is no gravitation.

It appears that Einstein listened carefully to what Cartan had to say, but never fully incorporated the correct geometry into his theory of gravitation. Einstein's torsionless gravitational theory appeared to have been confirmed by Eddington and co workers in the famous experiment based on light bending by gravitation. In fact the results by Eddington were inconclusive, but Einstein was catalyzed into fame by a general public which knew nothing about Riemann geometry. This is one of the very strange quirks of human nature. There appeared to be no need for Einstein to change his theory, but he must have known about torsion. The symmetric connection was used to get rid of torsion, but it was first realized in UFT122 that no torsion means no curvature and no gravitation. Nearly all the twentieth century theories are based on the Einstein field equation, so are incorrect.

From the outset of ECE theory I had striven to derive all the main equations of physics, chemistry and engineering by direct use of the Cartan geometry. The first structure equation defines the field in terms of the potential, the Cartan identity and its Hodge dual identity (Evans identity) produce the field equations. This is true for all four fundamental fields: electromagnetic,

gravitational, weak and strong. Comprehensive details of these theories are available on www.aias.us. The very fundamental tetrad postulate gives the ECE wave equation and all the wave equations of physics. One of the important indications of the geometry is that the wave equation of electrodynamics is the Proca equation with finite photon mass. The B(3) field is given by the first structure equation. The Dirac wave equation is obtained by a choice of tetrad in the ECE wave equation, which can be factorized into the ECE fermion equation to give many advantages over the Dirac equation. There are very few adjustables and unobservables in comparison with the standard model. The nuclear weak and strong fields are also based on the same Cartan geometry. Every paper of the UFT series is a variation on a theme of Cartan. Acceptance of one paper means acceptance of all papers. The Maxwell Heaviside theory of special relativity becomes the ECE field equation of electromagnetism with the spin connection of general relativity. All the main equations are summarized in the Engineering Model (UFT303), and its linearized version. The Aharonov Bohm effects, phase effects, quantum entanglement and so on are described by geometry, and so are the principal equations of electrical engineering. Energy from spacetime and low energy nuclear reactors are described in terms of geometry and transfer of energy from spacetime. I also began to expand in to precessional physics, for example the Thomas and equinoctial precessions, and began to apply the new torsion based equations of gravitation. One prediction of the latter is the gravitational equivalent of the Faraday effect, another is the existence of the magnetogravitational field, used in the theory of the equinoctial precession.

UFT93 onwards to UFT120 record a rapid development of methods to refute all the main theories and metrics of twentieth century gravitation, these papers show quite simply that big bang, black holes and all metrics of the Einstein field equation are incorrect due to the use of a symmetric connection, implying null torsion. So it is very easy to refute the propagandist attitude of the dogmatists. In these papers computer algebra came into its own because it could deal with any kind of complexity. From the outset in 1915 the Einstein theory suffered from over complexity, it would take many hours of tedious calculation by hand to arrive at

any kind of conclusion. As a result very few people studied it and a small group of dogmatists began to assert axiomatically that the connection must be symmetric. As a result many bizarre and useless solutions of the Einstein field equation began to proliferate until the theory failed completely and catastrophically to describe the velocity curve of a whirlpool galaxy. The dogmatist have just ignored this total failure, and continue to claim that the theory is very precise. They continue to produce obscure mathematical abstraction which has little connection to Baconian physics.

The great complexity of some of these metrical solutions can be seen in the tabular matter of a monograph which was eventually published in hardback in 2010 called "Criticisms of the Einstein Field Equation" (UFT301). This has been read many thousands of times without any meaningful criticism. The complete theoretical failure of the Einsteinian era can be traced to its axiomatic adoption of a symmetric connection. It has been replaced by a simpler theory which is just as accurate, developed in 2014, and called x theory. The latter is based on the experimental data. Despite getting off to a shaky start with imprecise instrumentation, contemporary data accurately measure light bending due to gravitation and perihelion precession. So these very precise data are used as the starting point of x theory. By continuously monitoring the scientometrics I began to realize that the profession read and studied each new UFT paper as it appeared, without a single exception. Every single one of these papers would have been censored by the standard modellers in a dark alley of a thousand dustbins. This means that the profession disregarded the old refereeing system right from the outset. By now the old refereeing system has become wholly irrelevant. Section 1 above shows that the best in the world have studied all the UFT papers since inception. By implication the corrupt goings on at Aberystwyth and UNCC have been condemned and consigned to historical oblivion. Very much the same thing happened to Keppler, his own university, Tuebingen, refused to appoint him, but he became Imperial Mathematicus at Prague. These scientometrics also show that the poor parts of the university system are in danger of becoming irrelevant. I judge by the best parts of the university system as in Section 1.

Horst Eckardt is systematic, hard working and able, and the first discussion with him took place in the winter of 2007 in the Patti Room at Craig y Nos Castle before the log fire there. The Castle had been owned by my ancestor Morgan Morgan from 1876 to 1878. He was the older brother of my great great great grandfather William Morgan of Glyn Tawe. It was possible to discuss a lot of things in detail, much more so than the e mail or telephone. The method of double checking of concepts, ideas and detail makes it very difficult for any real physicist or mathematician to dismiss any of the UFT papers. This became a clear pattern as the ECE theory progressed. The profession studies it carefully but the anonymous referees would most probably still reject it. Horst Eckardt and myself are able to work productively because we share the same attitude to new ideas and do not immediately reject them without thought. We are able to cover a very broad range of subject matter. I recall that when I first proposed the commutator method as a proof of the antisymmetry of the connection, Horst thought about it for a very long time, and in depth. Any standard model referee would have rejected the idea without any thought or any study. These scientometrics show that the profession no longer tolerates anonymous censorship, so the censors now face a huge tide of rejection. They themselves have been censored and are seen by the profession to be intolerant and in the worst cases wholly unethical.

On Aug. 19<sup>th</sup> 2004 Google Inc. went through its initial public offering, and Google Scholar was released in beta in Nov. 2004. This coincided roughly with my launch of these scientometrics on 30<sup>th</sup> April 2004. Google Scholar resembles CiteSeeX, getCITED, Scopus and Web of Science, and contains all my work back to 1973. It contains all the ECE papers, reviews and books in English and all of those translated into Spanish to date. These scientometrics go beyond these citation systems in many ways, they show that all my work is being read continuously around the world and go into far more detail than citations. I think that the citation system is obsolete, especially its use of dubious h and g indices and similar. I have very high h and g indices but they mean very little compared with these scientometrics, which go into detail wholly unprecedented in the history of science. The Google, MSN and Yahoo search engines for example spider the

www.aias.us site continuously. Spidering is carefully controlled and quality monitored, so I regard it to be of equal importance to "human readings". Obviously, spidering is ultimately controlled by humans too. So these scientometrics should be used for the assessment of the ECE theory and the rest of my work. Ever since I was a graduate student the latter has always been avant garde and radically original, and the delightful thing about the scientometrics is that I can see that all of my work is being read all the time. It goes without saying that I acknowledge the input of hundreds of co workers, co authors and others over the years, especially those who constructed the ECE websites and feedback sites, developed spider friendly website design, and brought in the knowledge revolution.

I have outproduced almost any other individual scholar so the citing of my work concentrates inevitably on building up an unbroken chain of reference to previous work. The entire chain of 312 ECE papers and books to date can be seen in the UFT section of www.aias.us, and every single item is studied. In comparison with the AIAS, the standard model produces very little that is really new. Much of its theory is incorrect and its experiments are lumbering dinosaurs that become more and more controversial. Who can replicate an experiment that costs billions? The standard model is also cemented in groupthink, anyone who goes outside the pathology is immediately in no man's land, exposed to fire. It is well known that very unpleasant pressures are brought to bear on any scientist who thinks originally. As time goes by they get more and more unpleasant, so people study ECE theory literally tens of millions of times, but in private. This is exactly the same process that occurs under any totalitarian regime. Only the bravest or those immune by fame, like Erasmus, can afford to criticise openly. He produced "In Praise of Folly" which threw the establishment away, and he did this in a subtle, brilliant way so that the establishment did not notice. Without these scientometrics the ossified dogmatists could simply claim that ECE does not exist. The fundamental implications of the antisymmetry of the connection began to be developed systematically with the help of Dr. Douglas Lindstrom from about UFT130 onwards. He is an able and careful engineer who used to work for the Canadian Government, from which he has now retired. He is a graduate of the

University of British Columbia, a world ranking university. A series of three author papers began to be developed which overturned the dogma of the standard electromagnetism and which introduced the antisymmetry laws of ECE theory. Notable among these is the Lindstrom constraint. Gradually, Eckardt and Lindstrom developed a complete grasp of ECE theory and began to apply it independently in a series of papers, UFT292 to UFT299 on <a href="www.aias.us">www.aias.us</a>. These have been studied thousands of times worldwide without any bona fide criticism. This is by now a familiar pattern, material which would probably still be rejected by the anonymous dogmatists is continuously studied in private worldwide. This means of course that the physics system is a total failure in many ways. The actual study of nature goes on as it has done for several hundred years. Therefore there were now at least three scientists with a complete technical grasp of ECE theory and these scientometrics began to accumulate over a span of many years, providing a data base of high statistical quality. The data base shows that ECE will be studied for the foreseeable future, one of the acid tests of any new theory.

It began to become clear that ECE is a true unified field theory and can be applied to essentially any problem in physics, chemistry and engineering.

#### 3. MONTHLY REPORTS

## Summary of April 2015

For <u>www.aias.us</u> There were 85,536 hits, 13,501 distinct visits, 61,076 page views, 18.47 Gigabytes downloaded, 2,986 documents read from 99 countries, led by USA, Germany, Luxembourg, Russian Federation, Ukraine, Mexico, Italy, Japan, ......

The complete total for <a href="www.aias.us">www.atomicprecision.com</a> and <a href="www.upitec.org">www.upitec.org</a> is estimated from years of monitoring of data to be about 60% higher. In addition an estimated one day was lost due to timer adjustments, so there is an adjustment factor of 1.633. This gives a total for all three sites of 139,680 hits, 22,047 distinct visits, 99,737 page views, 30.16 gigabytes downloaded.

All UFT papers read: led by 133(Sp), 128(Sp), 311, 25, 214-1b, 88, 177, 166(Sp), 155, 57, 142, 169, 107, 166, 214, 177(Sp), 150(Sp), 157(Sp), 175, 175, 159(Sp), 10, 41, 102, 170(Sp), 176, 83, 12, 33, 8, 85, 239, 144, 99, 18, 235, 50, 255, 152, 22, 51, 149, 164, 2, 137(Sp), 152(Sp), 14, 140, 159, 42, 87, 52, 140(Sp),

All Essays read or heard, led by 24, 43(Sp), 49(Sp), 50(Sp), 87(Sp), 18, 20, 23, 28, 38, 42, 44, 69, 73, .....

All Books and Articles read, led by: F3(Sp), Auto1, CV, Levitron, Potential Waves, Johnson Magnets, Auto2, ..........

### 1 - 14 April

### U. S. Universities, Institutes and Similar.

Arizona\*, Auburn, Columbia, Cooper, Iowa State, Kettering, Kansas State, MIT, Michigan State, Southern Methodist, Southern Polytechnic State University Marietta Georgia, Tex Tech University, University of Colorado Colorado Springs, UC Santa Cruz, Montana, Texas Austin, Wisconsin Madison, Oak Ridge, United States National Archives.

Europe and Asia Minor: Universities, Institutes and Similar.

Vienna, Graz, Catholic Univ. Louvain, Catholic Univ. Leuven, Xtec Catalonia, Neuchatel Switzerland, Charles Univ. Prague, St John the Evangelist Purkyne University in Usti Nad Labem Czech Republic, Max Planck Institute for Mathematics Bonn, Goettingen, Cologne, Konstanz, Spanish Research Council Institute for Fundamental Physics Madrid, Jaume 1<sup>st</sup> University Castello de la Plana Spain, Polyechnic Univ. Catalonia; Poitiers\*, Twente, Utrecht, Norwegian University of Science and Technology, Warsaw, Porto, ICSI Romania, Moscow State\*, Novosibirsk State Technical University, Uppsala, Aberdeen, Cambridge, Cardiff, Manchester, Robert Gordon University Aberdeen, Sheffield, Swansea, Llyfrgell Genedlaethol Cymru (National Library of Wales).

Rest of World: Universities, Institutes and Similar

MDP Argentina, Dalhousie\*, McGill, Seneca College, Quebec Trois Rivieres, Victoria, Waterloo, Federico Santa Maria Chile, ITP Malaysia, Hokudai Japan, Mexican National Autonomous, National Technical Univ. Nicaragua, UPAO Peru, UPD Philippines, Pakistan Education and Research Net (PERN), National University of Singapore, National Taiwan Normal University, Rhodes University South Africa, Witwatersrand South Africa.

# 15 - 30 April

US Universities. Institutes and Similar

Arizona\*, Colorado, CSU Long Beach, Drexel, Emory, SUNY Geneseo, Harvard, Iowa State, Princeton, Reed, Rider, Southern Methodist, South Dakota, Univ. Colorado Colorado Springs, Chicago, Connecticut, Texas Austin, UC Santa Barbara, Toledo, Washington State, Wake Forest, U. S. Government Equal Opportunities Commission, US Archives San Francisco, Iparadigms.

Europe and Asia Minor: Universities, Institutes and Similar.

TU Vienna\*, EPF Lausanne, ETH Zurich, Neuchatel, European Patent Office, Bruker Company, Duesseldorf, Goettingen\*, Heidelberg\*, Karlsruhe Tech., Tuebingen\*, Kaiserlslautern, Mainz, Syd Danks Denmark, Almeria Spain,

Autonomous Barcelona. Autonomous Madrid, Complutense Madrid, Valencia Tech., CSC Centre for Science Finland, Helsinki\*, French Atomic Energy Commission (ESA), Polytechnique, Bourgougne, Poitiers, Reunion Island, Patras Greece, European Space Operations Centre of the ESA, INFN Naples, Scuola Normale Superiore Pisa, FET Jordan, Leiden, Utrecht, Oslo, AGH Poland, Warsaw, AM Poznan, Coimbra Portugal, Porto, Budker Nuclear Institute Novosibirsk (Siberian Branch of the Russian Academy of Sciences), Bashtel, extensive interest Russian Federation, Solomono, Chalmers Sweden, KTH Stockholm, intense interest Ukraine, CNE Romania, Cambridge\*, Durham, Edinburgh, Imperial, Kent, All Souls Oxford, University College London, British Library, Llyfrgell Genedlaethol Cymru (National Library of Wales).

Rest of World: Universities. Institutes and Similar.

Mcquarrie Sydney, Monash, Sydney, Melbourne, INACAP Chile, UTFSM Chile, Sao Paulo\*, McMaster Canada, National Capital Freenet Ottawa Canada, Spanish Military Polytechnic (ESPE) Ecuador, City Hong Kong, UGM Indonesia, Indian Institute for Technology Delhi, Hokudai Japan, Tokyo, MESH, Toshiba, Auckland New Zealand, National University Singapore, UNS Indonesia, Panama, Edu System Pakistan, National Tsing Hua Taian, National Normal Taiwan, Academia Sinica Taiwan.

END OF ELEVEN YEARS OF DAILY RECORDING

Summary of May 2015

Up to 29/5/15 for www.aias.us there were 69,853 files downloaded (hits), 14.17 Gbytes, 12,203 distinct visits, 47,000 page views, about 3000 documents read from 95 countries, led by USA, Germany, Luxembourg, Russian Federation, Czech Republic, Ukraine, Brazil. Mexico, Netherlands, Italy, France, Japan, Britain, ......

All UFT papers read, led by 88, 25, 177, 166(Sp), 170(Sp), 85, 140, 159(Sp), 142, 150(Sp), 12, 157(Sp), 197, 141(Sp), 177(Sp), 166, 148(Sp), 152(Sp), 171(Sp), 214, 243, 239, 41, 8, 155, 42, 175, 213, 144, 169, 171, 255, 147, 11, 214, 94, 238b, 167, 215, 57, 18, 313, 43, 93, 109, 142(Sp), 150B, 33, 61, 68, 99, ......

All Essays read or heard, led by: 24(Sp), Light Deflection, 24, 29, 35, 92, 11(Sp), 43(Sp), 28(Sp), 29(Sp), 35(Sp), 37(Sp), 40(Sp), 63(Sp), 80(Sp), .....

All books and articles read, led by: F3(Sp), Auto One, Levitron, CV, Potential Waves, Auto Two, Scientometrics part one, .....

### 1 - 15 May

### U. S. Universities, Institutes and Similar.

Arizona, Arizona State, Berkeley, Central New Mexico Community College, CSU Long Beach, Harvard, Kansas State\*, MIT, Pomona College, Texas A and M, U Mass, Washington, Vermont, Chevron Corporation, United States Digital Archives San Francisco.

Europe and Asia Minor: Universities, Institutes and Similar

Bulgaria Academy of Siences Solid State Institute, CERN, EPF Lausanne, ETH, John the Baptist Univ. Usti nad Labem Czechia, Brno University of Technology, Technical University Bielefeld, Technical University Nuremberg, Bonn, Duisburg, Frankfurt, Goettingen, Halle, Konstanz, Tuebingen, Autonomous Madrid, Barcelona, Complutense Madrid, Spanish National Distance Learning University, Valencia Polytechnic University, Salamanca, Valencia University,

Turku Finland, French National High Energy and Particle Laboratory, Toulouse, Poitiers, ATT Schools Greece, Eotvos Lorand Hungary, Hebrew University of Jerusalem, Tel Aviv, Milan Polytechnic University, Messina, Amsterdam, Tilburg Univ. Netherlands, Silesian Data Center Poland, St Petersburg Regional Joint Computer Network of Education Science and Culture, Bristol, Cambridge, Durham, Glasgow, Manchester, Salford, Oxford.

Rest of World: Universities, Institutes and Similar.

Griffith Univ. Australia, Queensland, Gov. Canada Environment, Alberta, Univ. Chile, INACAP Chile, Catholic Univ Temuco Chile, Antioquia Colombia, Pontifical Bolivarian Colombia, Indian Institute of Technology Delhi, Chennai Institute of Technology, Department of Atomic Energy Gov. India, Nagoya Japan, Saga, IPN Mexico\*, ITESM Mexico, Guadalajara\*, National Pedagogic Mexico, NUST Pakistan, ITB Indonesia, National Taiwan\*.

### U. S. Universities, Institutes and Similar

Berkeley, Cornell, Lousiville, MIT, Purdue, Alabama Huntsville, UC Santa Cruz, Oregon, Washington, Los Alamos, Oak Ridge, US Archives, Chevron Corporation, George Stevens School.

Europe and Asia Minor: Universities, Institutes and Similar

Graz, EPF Lausanne, Helmholtz Juelich, Students Bonn, Hannover, Karlsruhe, Niels Bohr Institute, University of the Basques, Spanish Distance Learning University, Cantabria, Madrid Polytechnic, Santiago de Compostela, Valencia\*, Helsinki, Oulu, Poitiers, Savoie, Franche Comte, Eotvos Lorand Hungary, CNR Bologna, ICTP Trieste, Waterschappen Netherlands, Oslo, MLG Analysis Russia, MTS Banking Russia, St Peterburg Regional Joint Computer Network of Education, Science and Culture, Samara, Saransk, Tomsk, Tuapse, Russian Ministry of Education, Kiev, Poltava, Odessa, Aberdeen, Aberystwyth, Edinburgh, Strathclyde.

Rest of World: Universities, Institutes and Similar

UNS Argentina, AMBEP Brazil, Windsor Canada, Valle Colombia, Gov. Ecuador, Tezpur India, Bose Institute India, Kobe Japan, Nagoya, Osaka, Tohoku, Otago New Zealand, NUST Pakistan, National University Singapore, KMITL Thailand, METU Turkey, National Chiao Tung Taiwan, National Tsing Hua Taiwan, National Taiwan.