LIST OF ACHIEVEMENTS FOR NOMINATORS AND SUPPORTERS

 This list is meant as a guide to nominators and supporters for national hono(u)rs and academic prizes, and for Nobel Prize advisors. My interests include science, literature in Welsh and English, history, genealogy and voluntary work on behalf of science and the community. In a sense I have shared a Nobel Peace Prize given to Amnesty International as a sometime Amnesty volunteer. The work below has been recognized already by numerous honours and awards. A list of the main ones is given as follows.

MAIN HONO(U)RS AND AWARDS

1) “Burke’s Peerage and Gentry, Royal Section” (2012) in recognition of being raised to the Gentry and in recognition of Royal Celtic descent proven through my genealogy.

2) Award of Armorial Bearings in 2008 in recognition of my appointment as Civil List Pensioner in 2005 and voluntary services to science and the community. Rank of Gentleman, and therefore raised to the Gentry on merit.

3) Appointed a Civil List Pensioner by Crown and Parliament in 2005 in recognition of outstanding services to science. There are currently fifty three Pensioners and it is recognized that this is a high honour akin to Order of Merit (O. M.) and Companion of Honour ( C. H.). There are currently twenty five Members of the Order of Merit and about sixty Companions of Honour. Accordingly I have been nominated for O. M. and C. H. in the past.

4) Royal Society of Chemistry Meldola Medal (1979).

5) Royal Society of Chemistry Harrison Memorial Prize (1978).

6) Numerous other honours and awards.

7) I have been nominated for the Nobel Prize, Wolf Prizes in physics and chemistry, Milner Prize, and the Priestley and other awards of the American Chemical Society. These nominations roll over from year to year.

MAIN ACHIEVEMENTS IN SCIENCE

 These are listed in thirty two editions of “Marquis Who’s Who” in America, World, Science and Engineering. This is the world’s leading reference vehicle. I have produced over a thousand papers, reviews and books in science and have been an editor, and I am currently a book series editor. The papers are all available on [www.aias.us](http://www.aias.us) in the Omnia Opera , together with some books and extracts from books. The Einstein Cartan Evans (ECE) unified field theory papers are available in the UFT section of [www.aias.us.](http://www.aias.us.) . All the work is available in Google Scholar, and much of the ECE work has been translated into Spanish. That is also available on [www.aias.us](http://www.aisa.us) and Google Scholar. There are over twenty thousand postings in my diary or blog on [www.aias.us,](http://www.aias.us,) [www.upitec.org](http://www.upitec.org) and www.atomicprecision.com To extract a list of main achievements from such a large output (more than ten times the average for an academic) is inevitably subjective but my own favourite achievements are as follows, listed very roughly in order of what the colleagues judge to be the most important, and also based on computer feedback activity monitored daily for almost twelve years. So the impact of the last twelve years is known with great accuracy, and is astounding for work in theoretical physics. This is well known internationally.

1) Development of the first successful unified field theory, the well known Einstein Cartan Evans (ECE) unified field theory. It can be estimated accurately from distinct visits or session readings that this theory has been read about forty million times since it inception in March 2003. The websites of the theory are [www.aias.us,](http://www.aias.us,) [www.atomicprecision.com](http://www.atomicprecision.com) and [www.upitec.org.](http://www.upitec.org.) The entire output of the theory is in Google Scholar. It has been read many times for twelve years in the best universities, institutes and similar, for example the top twenty universities in the world by webometrics ranking. The Book of Scientometrics was started on April 30th 2004 and is almost three hundred pages long. It records a quarter of a million visits from staff and students in all the world’s leading universities, institutes and similar. This is considered to be the intellectual elite, and is about 2% of the vast total interest in ECE theory. The impact of the ECE theory has been recorded in several other ways and in great detail for almost twelve years. These include files downloaded (hits), gigabytes downloaded, page views, and reading sessions (distinct visits). The sites and diary combined record readings from essentially all the countries of the world, about one hundred and ninety countries.

2) Unification of the four fundamental force fields: gravitation, electromagnetism, weak and strong nuclear on the basis of the correct geometry, developed by Cartan.

3) Unification of quantum mechanics and general relativity.

4) Replacement and development of the Heisenberg indeterminacy by a causal theory.

5) Development of a generally covariant quantum mechanics and quantum field theory based on geometry, the fermion equation or chiral Dirac equation, elimination of unobservables such as the Dirac sea and negative energy.

6) Development of a generally covariant electrodynamics and quantum electrodynamics that gives a qualitative explanation of energy from spacetime and low energy nuclear reactions. There is overwhelming experimental evidence that these are reproducible and repeatable, a major breakthrough in energy technology.

7) Development of gravitational field equations based on the correct Cartan geometry that explain all that the Einstein theory explains and can also explain observations which cannot be explained by the Einstein theory, notably whirlpool and other types of galaxy. In ECE theory this is achieved with a generally covariant theory which does not use dark matter or dark flow.

8) Correction and development of the Einstein general relativity by incorporating Cartan’s spacetime torsion.

9) Proof that torsion and curvature are both non-zero in any kind of geometry and any correct theory of general relativity. If torsion is omitted, curvature and gravitation vanish. The Einstein theory was developed in an era when torsion was unknown and therefore has been developed into the Einstein Cartan Evans theory, which unifies physics straightforwardly.

10) In general the achievements of the ECE theory are summarized in two review papers UFT200 and UFT100 on [www.aias.us.](http://www.aisas.us.) and in several books.

11) Development of novel spin resonance spectroscopies.

12) Development of novel orbital theories.

13) Development of novel particle theories.

14) Inference of the quantum force and quantum Hamilton equations.

15) Many other original inferences in two hundred and seventy five UFT papers to date.

16) Development of photon mass theory based on the B(3) field.

17) Discovery of the B(3) field at Cornell in 1992, nominated for a Nobel Prize several times for this discovery. Following that discovery, O(3) electrodynamics was developed in many papers and books until the ECE theory was inferred in 2003. The B(3) field was based on the inverse Faraday effect, and it was recognized almost immediately that its existence inferred finite photon mass. It was the first irrefutable evidence for photon mass.

18) Many discoveries in magnetooptics and birefringence theory in the era immediately prior to the discovery of B(3) in November 1991.

19) Inference and development of group theoretical statistical mechanics, and its testing by computer simulation.

20) Co pioneer of molecular dynamics computer simulation at Oxford and Aberystwyth. About three hundred papers, reviews and books on computer simulation. This technique is now used routinely throughout the world.

21) Explanation of the far infra red absorption of materials with computer simulation at Aberystwyth.

22) Pioneering and development of the technique of field applied computer simulation at Aberystwyth, Bangor, Swansea, IBM and Cornell Theory Center.

23) Simulation of the Langevin and Kielich functions and development of the simulation of non linear stochastic processes.

24) Analysis of enantiomers and racemic mixtures with cross correlation functions obtained by computer simulation.

25) Co pioneer at IBM of computer animation, now used routinely throughout the world. Application of animation to field applied computer simulation at Cornell Theory Center.

26) Explanation of the far infra red and dielectric absorption of materials with the memory function. Awarded the prestigious Harrison Memorial Prize and Meldola Medal for this work.

MAIN ACHIEVEMENTS IN SCIENCE EDUCATION

 1) Founder of the European Molecular Liquids Group at the National Physical Laboratory, its first Scientific Coordinator and author of the European Delta Project. This achievement is recognized in the Badge of my Armorial Bearings.

2) Development of a new method of open source publication using websites. This has been overwhelmingly successful in the past twelve years and has changed the whole of physics.

3) Development of a new scientometrics system which is much more accurate, detailed and meaningful than the citation system.

4) In general, the opening up of physics to new and original ideas.

5) Voluntary work on behalf of science and science education recognized by the award of Armorial Bearings in 2008.

6) Development of the essay and essay broadcast methods of open source science education. This has also been overwhelmingly successful.

7) Refutations of obsolete concepts and their replacement by a general relativity based on rigorously correct geometry.

MAIN CAREER ACHIEVEMENTS

1) Fifteen prestigious Fellowships in open international competiton and Honorary Fellowships. A “world record” number of prestigious and internationally competitive post doctoral fellowships. Honorary Fellowships and similar in the Universities of London and Lancaster, IBM, Cornell and Pennsylvania State Universities.

2) Scientiae Doctor at the youngest age in the modern era, submitted at age twenty six, awarded at age twenty seven.

3) Full professor at age 36 at IBM.

4) Director and President of the Alpha Institute for Advanced Study (AIAS) from 1998 to present.

5) Thirty Two Editions of “Marquis Who’s Who”.

EDUCATIONAL ACHIEVEMENTS

 Top first class degree of my class of 1971, summa cum laude. Ph. D. and D . Sc. Degrees generally considered to be among the best produced by the University of Wales.

GREATEST IMPACT IN SCIENCE

 This is the internationally well known Post Einsteinian Paradigm Shift of the early twenty first century, read an estimated forty million times in twelve years. This is the appellation given by the eminent editor Prof. Emeritus Alwyn van der Merwe to ECE theory and its extraordinary impact. This impact is measured with accurate scientometrics. The latter are also a new and original method of measuring the impact of science.

POETRY AND AUTOBIOGRAPHY

 Two books of poetry of various kinds in Welsh and English. These are well read worldwide open source from www.aias.us. Two books of autobiography which have become very popular open source off [www.aias.us.](http://www.aias.us.)

FOUNDATION OF THE NEWLANDS FAMILY TRUST

 This has been founded to build up capital for work of benefit to science, and the Welsh language, community and culture, to protect endangered establishments and so forth. This is voluntary work on behalf of the community and science.

BROADCASTING, RADIO, TELEVISION AND FILMS

 I have participated in this activity on both sides of the Atlantic and have appeared in two films.