John Kingston White

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LinkedIn ResearchGate E21NS Counterpunch

OVERVIEW

Worked as a physicist, lecturer, and writer during a 40-year career in industry, academia, and government, creating original research in physics, engineering, and finance. Wrote *The Truth About Energy: Our Fossil-Fuel Addiction and the Transition to Renewables* (Cambridge University Press, 2024), *Do The Math! On Growth, Greed, and Strategic Thinking* (Sage, 2013), and *The House of Words* (Tuttle House 2013), as well as numerous articles, technical documents, and industry reports. Currently the editor of E21NS, a news service for energy-related information, as well as a freelance writer and editor.

STRENGTHS INCLUDE

- writing general interest articles on science, economics, and culture
- designing and writing technical documentation and training materials
- analysing data in numerous computer environments
- researching and reporting on complex systems
- teaching scientific and technical subjects

LANGUAGES

- English (native), Spanish (B2), French (B1), German (A2)

COMPUTER SKILLS

- Matlab, Fortran, C, JavaScript, Java, Visual Basic, VBA, Python, SPSS, Illustrator, Publisher, TeX

WORK EXPERIENCE

Consultant / adjunct lecturer / author	Jan 2012–	University College Dublin, University of Oviedo, Fisic Financial, E21NS
Lecturer / researcher	Jan 2003–Dec 2011	University College Dublin (School of Physics)
Project manager / computational analyst / technical writer	Sep 1992–Dec 2002	The Netherlands Organisation, Berminghammer Foundation Equipment, Sun Microsystems
Computational analyst / technical writer	Mar 1987–Oct 1992	Ontario Government (Ministry of Education), Interactive Image Technologies, ScotiaBank
Nuclear physicist / programmer	Sep 1984–Feb 1987	Atomic Energy of Canada Ltd. / Ontario Hydro

MAJOR WORK

As a physicist and lecturer at **University College Dublin**, wrote research papers, taught undergraduate and graduate courses in physics and engineering, and was the coordinator of a €1.7 million FP7 EU academia-industry grant. The research involved modelling laser-produced plasmas for lithography light sources using Hartree-Fock methods, Gaussian analysis, and atomic statistics. Produced undergraduate laboratory videos, created technical drawings for three books, and edited the School of Physics newsletter, *Fizz*. Created a Computing and Computational Analysis course for a taught Masters program, Part I of which is now online. Taught 2 modules in the CLIL/MEILIC Masters program at the **University of Oviedo** and was the moderator of a weekly educational forum at the CPR in Asturias.

As a computational analyst and technical writer for **The Netherlands Organisation** and **Berminghammer Foundation Equipment**, designed and wrote technical and promotional documents for use by in-house engineers, clients, and prospective customers for the novel foundation engineering system Statnamic. Wrote software applications and simulated field tests to a high degree of accuracy using computer codes created in Basic, Excel, and C. Edited the proceedings of a international conference, was editor of an industry newsletter *Fulcrum*, and created a database of international test results.

Worked as a project manager and consultant for a number of companies. Wrote financial algorithms and reports for **Fisic Financial**, created an internationalization (i18n) website for **Sun Microsystems (Oracle)**, and built a statistical scoring system to analyse data for a test-question database for the **Ontario Ministry of Education**. Wrote a college-level workbook to accompany the simulation package Electronics Workbench for **Interactive Images Technologies**, wrote a user manual for a financial trading system for **ScotiaBank**, and created a statistical fission product release model and made changes to CANDU safety and licensing codes for **Atomic Energy of Canada** and **Ontario Hydro**.

BOOKS and BOOK CHAPTERS

2024 *The Truth About Energy: Our Fossil-Fuel Addiction and the Transition to Renewables*, Cambridge University Press, New York, 2024.

2013 *Do the Math: On Growth, Greed, and Strategic Thinking*, Sage, Thousand Oaks, CA, 2013.

2013 *The House of Words*, Tuttle House, Dublin, 2013.

2010 "Steady-state and time-dependent LPP modeling," in *Lithography, Michael Wang (Ed.), ISBN: 978-953-307-064-3, INTECH*, 2010 (J. White, P. Dunne, and G. O'Sullivan).

SELECTED ARTICLES

2025 The United States versus China: Tesla, BYD, and the Trump Follies, *CounterPunch*, April 30, 2025
The United States versus Canada: Mine Eyes Don't See Any Glory, *CounterPunch*, March 14, 2025
2024 The End Days? World War, Tech Takeover, and Global Warming, *CounterPunch*, December 27, 2024
Green Energy: A Solution or a Challenge? - An Interview with John White, *EOI de Gijon*, December 20, 2024 (podcast)
The 20 Best Energy Films, *CounterPunch*, August 9, 2024
Home-Energy Trading: A Coming Utopia or Dystopia?, *CounterPunch*, June 18, 2024
Car Wars: Hydrocarbons, Lithium, and the Greening Grid, *CounterPunch*, March 26, 2024
The Truth About Energy is the Truth About Change, *Fifteen Eighty Four*, March 8, 2024
The Times They Aren't A-Changing: More Carbon, Heat, Hot Air Expected in 2024, *CounterPunch*, January 3, 2024.
2023 Oppenheimer, the Hero? Selling America by the Trinitrotoluene Ton, *CounterPunch*, August 4, 2023.
2022 Petroleum Wars in the Age of Climate Disaster: a Bridge Fuel Too Far, *CounterPunch*, June 3, 2022.
2021 Let the Sun Shine: Making Solar Power Work, *CounterPunch*, November 12, 2021.
2020 To Divide and Conquer: Science, News, and Hate in the Age of Instant Media, *CounterPunch*, May 14, 2020.
2017 How Big is My Tribe? Crisis in Catalonia, *CounterPunch*, November 8, 2017.
Is Equality Overrated, Too?, *CounterPunch*, January 17, 2017.
2015 Where to Bat Your Best Hitter, *Fan Graphs*, September 3, 2015.
Science in the Age of Opinion, *CounterPunch*, March 6, 2015.
2014 Returning to live in Ireland after 30 years, I was hatched, *The Irish Times*, December 9, 2014.
The Manufactured Need, *CounterPunch*, September 2, 2014.
Renewable Energy in Spain, *Caracolas*, August 30, 2014.
The World Cup of Oil, *CounterPunch*, July **7**, 2014.
All the World's a Strategy, *CounterPunch*, April 23, 2014.
2013 Music Statistics: Seeing the Business Side to Songs, *The World of Statistics*, October 17, 2013.
Teeter-Totter Averages: How to See Everyday Statistics, *The World of Statistics*, August 19, 2013.
Patterns in Probability: How to See Binomial Statistics, *The World of Statistics*, July 8, 2013.
2010 Soundbite Science: Mr Bacon Your Time is Up, *The University Observer*, March 30, 2010.
2009 Small is Getting Smaller, *The University Observer*, April 14, 2009.
1994-2008 *Fizz, Technology Ireland, Physics in Ireland*, "**Computer solutions**," *Fulcrum* (various).

SELECTED ACADEMIC PUBLICATIONS

2009 J. White, P. Dunne, P. Hayden, and G. O'Sullivan, Simplified one-dimensional calculation of 13.5 nm emission in a tin plasma including radiation transport, *Journal of Applied Physics*, **106** 113303, 2009.
2008 J. White, G. O'Sullivan, S. Zakharov, P. Choi, V. Zakharov, H. Nishimura, S. Fujioka, and K. Nishihara, Tin laser-produced plasma source modelling at 13.5 nm for extreme ultraviolet lithography, *Appl. Phys. Lett*., 9**2**, 151501, 2008.
2007 J. White, P. Dunne, P. Hayden, F. O'Reilly, and G. O'Sullivan, Optimising 13.5-nm laser-produced tin plasma emission as a function of laser wavelength, *Appl. Phys. Lett.*, **90**, 181502, 2007.
2007 J. White, A. Cummings, P. Hayden, P. Dunne, and G. O'Sullivan, "Simplified calculation of non-local thermodynamic equilibrium excited state populations contributing to 13.5-nm emission in a tin plasma," *J. Appl. Phys*, **101**, 04330, 2007.
2005 J. White, P. Hayden, P. Dunne, A. Cummings, N. Murphy, P. Sheridan and G. O'Sullivan, "Simplified modeling of 13.5 nm unresolved transition array emission of a Sn plasma and comparison with experiment," *J. Appl. Phys*., **98**, 113301, 2005.

SELECTED TALKS (GENERAL and ACADEMIC)

2024 The Truth About Energy, Escuela Oficial de Idiomas de Gijón, April 2024
2018 Women in Science, Escuela Oficial de Idiomas de Gijón, March 8, 2018.
2017 Future Energy Today, Escuela Oficial de Idiomas de Gijón, March 14, 2017.
2014 May the Mass times Accleration be with You -- Sir Isaac Newton, IES Montevil, Gijón, May 2014.
2009 Steady-state and Time-dependent LPP Modelling, Sematech EUV Source Workshop, Baltimore, May 29–30, 2009.

EDITORIAL

2006-2010 Referee, *Journal of Applied Physics*.
2005-2008 Editor, *Fizz*, The Newsletter of the School of Physics.
1994-1996 Editor, *Fulcrum*, The Newsletter of the Deep Foundations Institute

TECHNICAL PUBLICATIONS

1999 *VIBRA*, The Netherlands Organisation.
1998 *Sonic Integrity Testing*, The Netherlands Organisation.
1997 *PDA/Dynamic Load Testing*, The Netherlands Organisation.
1995 *Proceedings of the First International Statnamic Seminar*, Vancouver (Editor).
1994 *Mark V Series Diesel Hammer*, Berminghammer Foundation Equipment.
1993 *Statnamic*, Berminghammer Foundation Equipment.
1991 *The Electronics Workbook*, Electronics Workbench, Interactive Images Technology.

OUTREACH ACTIVITIES

Popular science lectures (2017-2018), Institute of Physics intervarsity quiz moderator (2009-2013), Transition-year lectures (2009-2013), Radar exhibition for Young Scientist/UCD (2006-2010), School talk program, Iraq-Ireland Teacher's conference lecture, Course applets, UCD Open Day Demonstrator.

EDUCATION

Ph. D., University College Dublin ("Opening the extreme ultraviolet lithography source bottleneck").
B. Sc., (First-class Honours Applied Physics), University of Waterloo (Ontario).