

# John Kingston White

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## 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), [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 from around the world, as well as a freelance writer and editor. *Solomon Sings* coming soon!

## STRENGTHS INCLUDE

- designing and writing technical documentation and training materials
- analysing data in numerous computer environments
- researching and reporting on complex systems
- managing and organising projects to deadline
- 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, Físic 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 **Físic 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

- 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.*, **92**, 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)

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

## 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).