

# MANOLIS ANTONOYIANNAKIS

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Associate Editor, Bibliostatistics Analyst  
The American Physical Society  
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## EDUCATION

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1998 PhD, Physics, Imperial College London  
1994 MS, Physics, University of Illinois at Urbana-Champaign  
1992 BS, Theoretical Physics (highest rank), Royal Holloway, University of London

## EXECUTIVE EDUCATION

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2019 Columbia Engineering Data Analytics Boot Camp, The Fu Foundation School of Engineering and Applied Science, Columbia University

## PROFESSIONAL APPOINTMENTS

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2017– Associate Editor, American Physical Society  
2013– Bibliostatistics Analyst, American Physical Society  
2006– Adjunct Associate Research Scientist, Department of Applied Physics and Applied Mathematics, Columbia University  
2011–17 Senior Assistant Editor, American Physical Society  
2008–10 Scientific Advisor to the President, European Research Council (ERC)  
2003–11 Assistant Editor, American Physical Society  
2000–03 Science Editor, Crete Univ. Press, Foundation for Research & Technology–Hellas (FORTH)

## PUBLICATIONS

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### Refereed Journal Articles and Conference Proceedings (6)

- 2019 [Impact Factor volatility to a single paper: A comprehensive analysis of 11639 journals](#), M. Antonoyiannakis, *Quantitative Science Studies* (under review)
- [How a Single Paper Affects the Impact Factor: Implications for Scholarly Publishing](#), M. Antonoyiannakis, *Proceedings of the 17th Conference of the International Society of Scientometrics and Informetrics*, vol. II, 2306–2313 (2019)
- 2018 [Impact Factors and the Central Limit Theorem: Why Citation Averages are Scale Dependent](#), M. Antonoyiannakis, *Journal of Informetrics* **12**, 1072 (2018)
- 2014 [Acceptance Rates in Physical Review Letters: No Seasonal Bias](#), M. Antonoyiannakis, *Learned Publishing* **27**, 53 (2014)

- 1999 [Electromagnetic Forces in Photonic Crystals](#), M. I. Antonoyiannakis and J. B. Pendry, *Physical Review B* **60**, 2363 (1999)
- 1997 [Mie Resonances and Bonding in Photonic Crystals](#), M. I. Antonoyiannakis and J. B. Pendry, *Europhysics Letters* **40**, 613 (1997)

#### Editorials & Commentaries (4)

- 2015 [Editorial: Highlighting Impact and the Impact of Highlighting: PRB Editors' Suggestions](#), M. Antonoyiannakis, *Physical Review B* **92**, 210001 (2015)
- 2009 [The European Research Council: A Revolutionary Excellence Initiative for Europe](#), M. Antonoyiannakis and F. C. Kafatos, *European Review* **17**, 511 (2009)
- [Editorial: Is PRL too large to have an 'impact'?](#), M. Antonoyiannakis and S. Mitra, *Physical Review Letters* **102**, 060001 (2009)
- [The European Research Council Takes Flight](#), M. Antonoyiannakis, J. Hemmelskamp and F. C. Kafatos, *Cell* **136**, 805 (2009)

#### Edited Volumes (5)

- 2017 [An Introduction to Quantum Physics: A First Course for Physicists, Chemists, Materials Scientists, and Engineers](#), by S. Trachanas, M. Antonoyiannakis (ed.), L. Tsetseris (ed.) (Wiley-VCH, 2017). ISBN: 978-3-527-41247-1.  
I co-translated from Greek and co-edited the English edition.
- 2005 [General Relativity](#), by J. L. Martin (Prentice Hall, 1996).  
Published in Greek by Crete University Press, 2005. ISBN: 978-960-524-198-8.  
I edited the Greek translation (language editing).
- 2004 [Thomas' Calculus](#), 10<sup>th</sup> ed., rev. by R.L. Finney, M. D. Weir, and F. R. Giordano (Addison Wesley Longman, 2001). Published in Greek by Crete University Press, 2004. ISBN: 978-960-524-182-7.  
I translated and edited the Greek edition.
- 2002 [Problems in Quantum Mechanics](#), by S. Trachanas.  
Published in Greek by Crete University Press, 2002. ISBN: 978-960-524-142-1.  
I solved and verified many of the 150 problems, quizzes, and solved examples in the book.
- [Thermodynamics](#), by E. Fermi (Dover, 1956)  
Published in Greek by Crete University Press, 2002. ISBN: 978-960-524-138-4.  
I co-edited the Greek translation (language and science editing).

#### Science Writing

As an editor for *Physical Review Letters*, I have written several Synopses in the APS online publication *Physics*, on papers that the editors deemed most interesting or important. ([web](#))

#### HONORS AND AWARDS

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| 1995–98 | Beit Fellowship for Scientific Research, Imperial College London   |
| 1992    | Martin Holloway Prize for best graduate in the Science Faculty, Royal Holloway, University of London     |
| 1992    | Driver Prize for best final-year student at the Physics Department, Royal Holloway, University of London |
| 1991    | Leo Pincherle Prize for excellence in physics, Royal Holloway, University of London                      |
| 1990    | Leo Pincherle Prize for excellence in physics, Royal Holloway, University of London                      |

## INVITED TALKS (44)

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- 2017 *Making Sense of Journal Impact Metrics*, Institute of Physics, University Rostock, Rostock, Germany (November 30)  
*Peer Review Meets Analytics*, Physics Department, University of Illinois at Urbana-Champaign, Urbana, IL (October 6)
- 2016 *Selectivity, Prestige, and High-Impact in Science Publishing: An APS Perspective*, Doctoral School “Metamaterials: From THz to Optics,” Crete, Greece (September 18)
- 2015 *Analyzing Peer Review*, Early Stage Career Workshop, Nanoscale Quantum Optics COST Action, Malta (November 17)  
*Scientific Publishing in APS Journals: Review Process & Citation Analysis*, Tel Aviv University, Physics Department, Tel Aviv, Israel (June 28)  
*Science Publishing: Trends & Challenges*, ETOPIM 10 conference, Neve Ilan, Israel (June 26)  
*Impact Facts & Impact Factors: A View from the Physical Review*, PQE - The Winter Colloquium on the Physics of Quantum Electronics, Snowbird, UT (January 6)
- 2013 *The Intricacies of Peer Review: An Insider's View from the Physical Review*, Wesleyan University, Physics Department, Middletown, CT (October 24)  
*Peer Review and Citation Analysis in Physical Review Letters*, 3rd European PhD School on Mathematical Modeling of Complex Systems, Technological Educational Institute of Crete, Heraklion, Greece (July 22)
- 2012 *The Physical Review Journals & You: Why and How Should We Work Together?* Nanyang Technological University, Physics Department, Singapore (October 10)  
National University of Singapore, Center for Quantum Technologies, Singapore (October 9)  
National University of Singapore, Physics Department, Singapore (October 8)  
*Editors' Session*, Hong Kong University of Science and Technology, Advanced Study Institute, Hong Kong, China (October 6)  
*The Physical Review Journals & You: Why and How Should We Work Together?*, Shanghai Jiaotong University, Physics Department, Shanghai, China (September 27)  
*The Physical Review Journals & You: How to Work Together*, Nanjing University, Physics Department, Nanjing, China (September 25)  
First Joint Session Between the Chinese Physical Society and the American Physical Society, Sun Yat-sen University, Guangzhou, China (September 22)
- 2011 *Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, European Laboratory for Nonlinear Spectroscopy (LENS), Florence, Italy (February 25)  
*Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, University of Texas at Austin, Electrical & Computer Engineering Department, Austin, TX (February 10)  
*Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, Commissariat à l' énergie atomique (CEA) – Saclay, Quantum Electronics Group, Paris, France (January 21)  
*Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, University of Paris, Laboratoire de Physique des Solides, Paris, France (January 20)  
*Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, University of Paris, Institut d' Electronique Fondamentale, Paris, France (January 19)

- Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, Ecole Polytechnique, Physics Department, Paris, France (January 18)
- NANOMETA 2011 (Nanophotonics and Metamaterials) conference, Seefeld, Austria (January 5)
- 2010 *Scientific Publishing in a Competitive Environment: Physical Review Letters and Physics in the New Era*, National Technical University of Athens, Physics Department, Athens, Greece (November 19)
- 2009 Institute of Physics, Standing Conference of Physics Professors (SCPP), London, UK (November 20)
- Getting Published—and Getting Noticed!—in Physical Review Letters*, University of Southampton, Optoelectronics Research Center, Southampton, UK (May 14)
- CIC Nanogune, Nanoscience Cooperative Research Center, San Sebastian, Spain (January 29)
- 2008 *Successful Letters in Physical Review Letters*, Extreme Photonics Lab, RIKEN, Wako, Japan (September 26)
- Successful Letters in Physical Review Letters: An Editor's Perspective*, Kyoto University, Yukawa Institute of Theoretical Physics, Kyoto, Japan (September 25)
- Successful Letters in Physical Review Letters*, Tokyo University, Physics Department, Tokyo, Japan (September 24)
- Successful Letters in Physical Review Letters*, Tokyo University, Applied Physics Department, Tokyo, Japan (September 19)
- Peer Review and Citation Analysis in PRL: An Editor's Perspective*, Aristotle University of Thessaloniki, Physics Department, Thessaloniki, Greece (January 31)
- Peer Review and Citation Analysis in PRL: An Editor's Perspective*, University College London, Centre for Computational Science, London, UK (January 25)
- Peer Review and Citation Analysis in PRL: An Editor's Perspective*, Imperial College London, Physics Department, London, UK (January 24)
- Peer Review and Citation Analysis in PRL: An Editor's Perspective*, Royal Holloway, University of London, Physics Department, Egham, UK (January 22)
- Peer Review and Citation Analysis in Physical Review Letters: An Editor's Perspective*, Cambridge University, Cavendish Laboratory, Cambridge, UK (January 21)
- 2007 *Peer Review in Physical Review & Letters*, University of Crete, Physics Department, Heraklion, Greece (July 19)
- Peer Review in Physical Review & Letters*, Dresden University of Technology, Institute of Solid State Physics (IFP), Dresden, Germany (January 17)
- Peer Review in Physical Review & Letters*, Goethe University, Institute of Theoretical Physics, Frankfurt, Germany (January 16)
- Peer Review in Physical Review & Letters*, Max Planck Institute for Complex Systems, Dresden, Germany (January 15)
- Peer Review in Physical Review & Letters*, Leibniz Institute for Solid State and Materials Research Dresden (IFW-Dresden), Winter School, Dresden, Germany (January 14)
- 2005 *The Peer Review Process at the Physical Review*, EKEFE Demokritos, Institute of Materials Science, Athens, Greece (October 27)
- The Peer Review Process at the Physical Review*, National Technical University of Athens, Department of Sciences, Athens, Greece (October 25)
- The Peer Review Process at the Physical Review*, University of Athens, Physics Department, Athens, Greece (October 18)

## CONFERENCE TALKS (10)

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- 2020 *Impact Factor volatility to a single paper: A comprehensive analysis of 11639 journals*, APS March Meeting, Denver, CO, (March)
- 2019 *How a single paper affects the Impact Factor: Implications for Scholarly Publishing*, 17<sup>th</sup> International Society for Scientometrics and Informetrics, Rome, Italy (September 4)  
*Impact Factors and the Central Limit Theorem: Why Citation Averages are Scale Dependent*, APS March Meeting, Boston, MA (March 6)
- 2018 *Why Impact Factor Rankings Favor Small Journals*, APS March Meeting, Los Angeles, CA (March 6)
- 2017 *Editorial Highlighting and Highly Cited Papers*, APS March Meeting, New Orleans, LA (March 14)
- 2016 *Highlighted Impact: Do editors' selections identify influential papers?* APS March Meeting, Baltimore, MD (March 18)
- 2015 *Median Citation Index vs. Journal Impact Factor*, APS March Meeting, San Antonio, TX (March 6)
- 2011 *Quantifying Peer Review*, Wave Propagation conference (WAVEPRO), Rethymno, Greece (June 9)
- 2009 *S-index: Measuring Significant, not Average, Citation Performance*, APS March Meeting, Pittsburgh, PA (March 18)
- 2008 *Citation Analysis: Beyond the Journal Impact Factor*, APS March Meeting, New Orleans, LA (March 13)

## DEPARTMENTAL & SPONSORED TALKS (9)

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- 2016 *Highlighting Papers*, American Physical Society, Editors' Annual Fall Meeting, Ridge, NY (October 29)
- 2015 *Tutorial for Authors & Referees*, APS March Meeting, San Antonio, TX (March 4)
- 2014 *What is Physical Review X?* APS March Meeting, Denver, CO (March 4)
- 2013 *"In God We Trust, All Others [Must] Bring Data:" Bibliostatistics Support for the Editorial Office*, American Physical Society, Editors' Annual Fall Meeting, Ridge, NY, (November 9)
- 2010 *Impact Statistics*, American Physical Society, Editors' Annual Fall Meeting, Ridge, NY (October 23)
- 2009 *The European Research Council: Funding Frontier Research on the Basis of Peer Reviewed Excellence*, American Physical Society, Editorial Office, Ridge, NY (March 25)
- 2008 *Quantifying Citation Impact*, Columbia University, Dept. of Applied Physics and Applied Mathematics, New York, NY (May 15)  
*A Road Less Traveled: An Editorial Career*, APS March Meeting, Panel on Alternative Careers, New Orleans, LA (March 12)
- 2007 *Mining the Web of Science*, American Physical Society, Editorial Office, Ridge, NY (October 2)

## TEACHING

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### Graduate

- 2016–17 5-lecture seminar on Scientific Publishing, IGERT Quantum Optics, Columbia University

### Undergraduate

- 1995–96 Lab demonstrator, Physics Department, Imperial College London  
1992–94 Graduate Teaching Assistant, Physics Department, University of Illinois at Urbana-Champaign

Statistical Mechanics (7<sup>th</sup> semester)  
Electricity & Mechanics Lab (4<sup>th</sup> semester)  
Quantum Physics (7<sup>th</sup> semester)  
Quantum Physics (8<sup>th</sup> semester)

## **TECHNICAL SKILLS**

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Python programming (Python 3, APIs, JSON, Pandas, Matplotlib), R, VBA, Databases (MySQL, MongoDB), Git, Web visualization (HTML, CSS, Bootstrap, Dashboarding, JavaScript, D3.js), Flask, Web scraping (Splinter, BeautifulSoup), Tableau, Machine Learning

## **REVIEWING EXPERIENCE**

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*Journal of Informetrics, Scientometrics, Learned Publishing*

## **PROFESSIONAL SERVICE**

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APS March Meeting 2020, panel, Scholarly Metrics in Research, organizer & moderator, Denver, CO (March 4, 2020)  
US/Middle East Conference on Photonics, 2019, poster award committee, New York, NY (November 4–6, 2019)  
APS March Meeting 2019, panel, Scholarly Metrics in Research Assessment, organizer & moderator, Boston, MA (March 6, 2019)  
Metamaterials 2019, Physical Review journals symposium, co-organizer, Rome, Italy (September 17, 2019)  
Metamaterials 2018, Physical Review journals symposium, co-organizer, Espoo, Finland (August 29, 2018)  
Metamaterials 2017, Physical Review journals symposium, co-organizer, Marseille, France (August 28, 2017)  
NANOMETA 2013, program committee, Seefeld, Austria (January 3–6, 2013)  
NANOMETA 2011, program committee, Seefeld, Austria (January 3–6, 2011)

## **PROFESSIONAL MEMBERSHIP**

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1993– American Physical Society (APS)  
2012– American Statistical Association (ASA)  
2013– Association for Information Science & Technology (ASIS&T)  
2018– International Society for Scientometrics and Informetrics (ISSI)

## **OTHER EXPERIENCE**

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1999–00 National military service (Greece)