Chris Impey — Biographical Sketch

Education & Appointments

- B.Sc. First Class Honors, Physics, University of London, 1977
- Ph.D. Astronomy, University of Edinburgh, 1981
- UK Science Research Council/NATO Fellow, University of Hawaii, 1981
- Weingart Prize Fellowship, California Institute of Technology, 1983-1986
- Assistant Professor, University of Arizona, 1986-1991
- Associate Director, NASA Arizona Space Grant, 1991-1996
- Deputy Department Head, Department of Astronomy, 1999-2016
- Associate Dean, College of Science, 2016-2020
- University Distinguished Professor, and Honors Professor, 2000-present

Professional Honors & Awards

- Dudley Observatory Award, 1990
- Slipher Award, National Academy of Sciences, 1998
- Distinguished Teaching Scholar, National Science Foundation, 2002
- Arizona Teacher of the Year, Carnegie Foundation for Teaching, 2002
- Vice President, American Astronomical Society, 2003-2006
- Phi Beta Kappa Visiting Scholar, 2007-2008
- Richard H. Emmons Teaching Award, Astronomical Society of the Pacific, 2008
- Fellow, American Association for the Advancement of Science, 2009
- Howard Hughes Medical Institute Professor, 2014-2019
- Klumpke Award for Contributions to Public Understanding of Astronomy, 2016
- American Astronomical Society, Education Prize, 2021

University Teaching Awards

- Faculty of Science Distinguished Teaching Award, 1988
- Provost's Teaching Improvement Award, 1989, 1992
- Burlington Resources Foundation Achievement Award, 1991
- General Education Teaching Award ,1992
- El Paso Energy Foundation Faculty Achievement Award, 1997
- University Distinguished Professorship, 2000
- Henry and Phyllis Koffler Prize for Teaching, 2004
- Galileo Circle Fellowship, 2005

Research Highlights

- 230 refereed research publications, and 90 conference proceedings published
- $20 million in research and education grants as PI or co-I (mostly NASA and NSF)
- 24 projects approved as PI or co-I over 17 years with the Hubble Space Telescope
- 240 research colloquia presented worldwide, editor of 8 conference proceedings
- Proposal Review panels for HST (2x), Chandra (2x), Spitzer (2x), NOAO (2x), Keck
- AAS Executive Committee, Biosphere-2 Advisory Board, and HST Users Committee
- Annual Reviews article, invited article for American Academy of Arts and Sciences

Education Highlights

- 5900 University of Arizona students taught, plus 320,000 in massive online classes
- 4 million minutes of MOOC lectures watched, over a million YouTube lecture views
- Creator of the "Teach Astronomy" web site and tools, serving non-science majors
- "Cosmic Journey" and "Universe Revealed" textbooks written with Bill Hartmann
- 35 graduate students advised, research conducted with 250 UA undergraduates
- UA Science Center Management Board, UA Instructional Technology Council
- AAS Astronomy Education Board, Editorial Board "Astronomy Education Review"
- AAS Harlow Shapley Visiting Lecturer for 30 years, 25-30 public lectures per year
- Co-Director of UA STEM Center, managing EPO and STEM workforce development

Selected Popular Articles Authored

- "Humanistic Perspective on Astrobiology" 1995. Vistas in Astronomy, Vol. 39, p. 553
- "Ghost Galaxies in the Cosmos," 1996. Astronomy Magazine, November, p. 40
- "Life in the Universe," 1998, in The University Book: An Anthology of Writings from the University of Arizona, (Simon and Schuster Custom Publishing), p. 283
- "The Unspeakable Act of Creation." 1998. Mercury, Volume 27, March and April, p. 9
- "Our Quest to the Cosmos," 1999. The World and I Magazine, September, p. 160
- "Interactive Teaching Tools for Astronomy," 2000. Interactive Learning: Vignettes from America's Most Wired Campuses, (Anker Publishing: Bolton, MA), p. 56
- "The End of Astronomy?," Mercury Magazine, Vol. 29, May and June, p. 34
- "Reacting to the Size and Shape of the Universe," 2001. Mercury Magazine, Vol. 30, January and February, p. 36, and March and April, p. 34
- "Does the Universe Have an Aesthetic?" 2003. Memorie della Societa Astronomica Italiana, Vol. 73, p. 266
- "Truth and Beauty in Cosmology," 2004. Mercury Magazine, Volume 33, p. 1
- "The End: Eschatology in Astronomy and Cosmology," 2006, in the Proceedings of the INSAP4, Publications of the Astronomical Society of the Pacific, in p. 43

Books Authored

- Impey, C.D. and Hartmann, W.H. 2000. The Universe Revealed, 1st Edition (Brooks Cole Publishing, ISBN 0-534-24894-2), 636 pages
- Hartmann, W.H. and Impey, C.D. 2002. Astronomy: The Cosmic Journey}, 6th Edition (Wadsworth Publishing, ISBN 0-534-38249-5), 553 pages
- Impey, C.D. 2007. The Living Cosmos (Random House, ISBN 1-400-06506-2), 393
- Impey, C.D. 2010. How It Ends (Norton, ISBN 978-0-393-06985-3), 352 pages
- Impey, C.D. 2012. How It Began: A Time Travelers Guide to the Universe (Norton, ISBN 978-0-393-08002-5), 448 pages
- Impey, C.D., and Henry, H.H. 2013. Dreams of Other Worlds: The Amazing Story of Unmanned Space Exploration (Princeton University, 978-0-691-14753-6), 450 pages
- Impey, C.D. 2014. Humble Before the Void (Templeton, 978-1-59947-392-5), 246 pp
- Impey, C.D. 2015. Beyond: Future Space (Norton, 978-0-393-23930-0), 321 pages
- Impey, C.D. 2018. Einstein's Monsters (Norton, 978-1-324-00093-8), 304 pages

Books Edited

- Davies, J.I, Impey, C.D., and Phillipps, S. 1999. Surface Brightness Universe: IAU Colloq. 171, (Astronomical Society of the Pacific, ISBN 1-886733-92-9), 400 pages
- Impey, C.D. 1999. International Symposium on Astrophysics Research and Science Education), (University of Notre Dame Press, ISBN 0-268-03155-X), 324 pages
- Impey, C.D., and Petry, C.E. 2003. Science and Theology: Ruminations on the Cosmos, (University of Notre Dame Press, ISBN 88-209-6888-6), 165 pages
- Impey, C.D., and Petry, C.E. 2003, the International Symposium on Astrophysics Research and on the Dialogue Between Science and Religion, (University of Notre Dame Press, ISBN 88-209-6890-8), 322 pages
- Impey, C.D. 2010. Talking About Life: Conversations on Astrobiology, (Cambridge University Press, ISBN 978-0-521-51492-7), 408 pages), in press
- Impey, C.D., Lunine, J., & Funes, J., S.J. 2012. Frontiers of Astrobiology, (University of Cambridge Press, ISBN 978-1-107-00641-6), 250 pages
- Impey, C.D., Stoeger, W., & Spitz, A. 2013. Astrobiology: Encountering Life in the Universe (University of Arizona Press, ISBN 978-0-8165-2870-7), 265 pages
- Campion, N., and Impey, C.D. 2018. Imagining Other Worlds: Explorations in Astronomy & Culture, (Sophia Center Press, ISBN 978-1-907767-11-1), 362 pages
- Impey, C.D., and Buxner, S. 2020. Astronomy Education Volume 1: Evidence-Based Instruction for Introductory Courses, (American Institute of Physics, ISBN 978-0-7503-1721-4), 266 pages
- Impey, C.D., and Wenger, M. 2020. Astronomy Education Volume 2: Best Practices for Online Learning Environments, (American Institute of Physics, ISBN 978-0-7503-1717-7), 164 pages

Outreach Highlights

- Flandrau Planetarium **Eyes on the Universe** Lecturer
- **Smithsonian Visiting Associates** Lecturer
- **H.M.S. Southward** Eclipse Cruise Enrichment Lecturer
- **Smithsonian Visiting Associates** Lecturer
- Astronomical Society of the Pacific **Universe Conference** Invited Speaker
- American Astronomical Society **Shapley Visiting Lecture**r
- **Research Corporation** "Partners in Science" Conference Plenary Speaker
- **Vatican Observatory** 5^{th},10^{th}, 13^{th} Summer Schools in Astronomy, Lecturer
- **Phi Beta Kappa** Banquet Speaker
- Conference on "Inspiration of Astronomical Phenomena" Invited Speaker
- Hayden Planetarium **Frontiers in Astrophysics** Lecturer
- **NASA Space Grant Consortium Symposium** Plenary Speaker
- **Joint Center for the Study of Time in Physics and Cosmology** Seminar Series
- **Merged Realities: A Synthesis of Art and Science** Symposium
- Texas Astronomy League, Invited speaker
- Santa Fe Planetarium **Current Research Series**
- LodeStar Planetarium, Albuquerque, Public Lecture
- W.M. Keck Observatory Public Evening Lecture
- Stockholm Observatory Public lecture

- University of North West, South Africa, Public Lecture Series
- **ASP Public Symposium** "From Stars to Life" Invited Speaker
- UA School of Architecture "Intuition: Hapticity" Invited Speaker
- Harvard University Alumni Club Speaker
- Arizona Board of Regents Meeting, Featured Faculty Speaker
- **201st AAS Meeting** "Teaching with Electrons" Invited Plenary Speaker
- National Science Foundation **MPS Distinguished Lecture**
- NSF Teacher-Leaders in Research Based Science Education Invited Speaker
- **Society for College Science Teachers**, Mini-Conference Speaker
- Princeton University "Council on Science and Technology" Invited Speaker
- NSF Office of Legislative and Public Affairs, Symposium Summary Speaker
- American Physical Society “Four Corners Meeting” Invited Speaker
- **Western Humanities Alliance** Conference on “Borders,” Plenary Speaker
- **Astronomical Society of the Pacific** Annual Awards Dinner, Banquet Speaker
- **Vatican Observatory Foundation** Fund-Raiser, Banquet Speaker
- **The Reinvention Center**, Washington, D.C., Workshop Leader
- **Phi Beta Kappa Visiting Scholar**, 22 talks at 12 colleges in North America
- College of Science Evolution Lecture Series, Speaker
- **St. Albert’s Forum on Theology and Science**, Tucson, Lecturer
- Pale Blue Dot III, Adler Planetarium, Invited Talk, Chicago, Illinois
- **Penny Stamps Distinguished Visitor Series**, Univ. Michigan, Invited Speaker
- **Costa Lines**, Mediterranean Eclipse 2006, Enrichment Lecturer
- Phoenix Science Center, Evolution Lecture Series, Speaker
- Plenary Speaker, ASP “Cosmos in the Classroom” Pomona, California
- **Adler Planetarium** “Far Out Friday” Science Lecturer
- **Hayden Planetarium** Author Lecture Series, New York City
- Astrobiology Science Conference, Invited Speaker, Santa Clara, California
- **NASA APPEL** “Essentials of Astronomy” course, created and taught 15 times
- **Science For Monks Program**, Dharamsala, India, 6 workshops, Lecturer
- UA College of Science **Commencement Speaker**

Leadership Experience

Impey has 30 years of continuous funding from NASA and NSF on a range of research and education projects, including 24 grants for research with the Great Observatories, 6 grants for E/PO work, a 5-year LTSA grant, and a position for 5 years as the Associate Director of the NASA Arizona Space Grant, ranked first among 50 in the United States. For 19 years he was Deputy Department Head in charge of academic programs in the Department of Astronomy, having the largest undergraduate majors and second largest graduate program in the U.S. He managed a $2.5 million a year budget and oversaw a teaching program involving 45 courses and 30 faculty and instructors. He is former Vice President of the American Astronomical Society and co-chair of the National Academy 2010 Decadal Survey’s Astronomy Education Study Group. In 2014, he was awarded $1 million to create online courses as a Howard Hughes Medical Institute Professor. He was first co-Director of the University of Arizona’s STEM Center, and as Associate Dean he managed a budget of $9 million for instructional programs in the College of Science.