

MICHAEL STARBIRD BIOGRAPHICAL SKETCH

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PROFESSIONAL EXPERIENCE

1998-	University Distinguished Teaching Professor	The University of Texas at Austin
2000-2021	Co-Director, Inquiry Based Learning Project	The University of Texas at Austin
1996-1999	Co-Director, Discovery Learning Project	College of Natural Sciences, UT
1995-97	Associate Dean for Undergraduate Education	College of Natural Sciences, UT
1989-96	Associate Dean for Academic and Student Affairs	College of Natural Sciences, UT
1988-	Professor of Mathematics	The University of Texas at Austin
1985-86 and 87(summer)	Member, Technical Staff	Jet Propulsion Laboratory, Pasadena, CA
1980-1988	Associate Professor of Mathematics	The University of Texas at Austin
1983	Visiting Associate Professor	University of California, San Diego
1978-79	Visiting Member	Institute for Advanced Study, Princeton, N.J.
1974-80	Assistant Professor of Mathematics	The University of Texas at Austin

LECTURES AND WORKSHOPS SINCE 2000

Since 2000, Starbird has given more than 350 invited addresses, including many named lectures, keynote addresses, and addresses for broad audiences. Since 2000, he has given more than 45 workshops and minicourses. Here are some links to some videos available online. The first one is my lecture after receiving an honorary doctorate degree from Pomona College. The person who received his honorary degree immediately before me was Placido Domingo, the great tenor. You will enjoy it:

<https://www.youtube.com/watch?v=otrgi2We9VM&feature=youtu.be> . Here are some other videos of an interview and a workshop:

https://www.youtube.com/watch?v=ii0xJDVF8c8&list=PLEo7ej2RhHszJy_77UXC8GJpb8LtW-dJT ,

<https://www.youtube.com/watch?v=VVSaNNrkeEM> .

My edX MOOC titled *Effective Thinking Through Mathematics* and my 60 hours of Great Courses videos provide other examples of my presentation style.

SELECTED PUBLICATIONS SINCE 2000

Mathematical Research

(with Michael Freedman), The Geometry of the Bing Involution, 2022, 48 pgs. (submitted).

(with Michael Freedman), Shrinking Without Doing Much at All, 2022, 15 pgs. (In revision).

Book Chapter on Education

(with William R. Wolessensky, toufic chahin, Bethany Miller, Joel Walsh), The *Effective Thinking Calculus* Project at UT Austin, book chapter to appear in the *Mathematical Association of America's Notes Volume on Diverse, Equitable, and Inclusive Issues in Calculus Programs*, to appear 2023.

Books and Video Courses

(with Edward Burger) *The Heart of Mathematics: An invitation to effective thinking* (4 editions) and associated *Instructors Resource*, 1st and 2nd editions Key College Publishing in cooperation with Springer-Verlag, New York, 2000, 2004, 3rd and 4th editions: Wiley & Sons Publishing. (2010, 2012). (900 pp.)

(with Edward Burger) *Coincidences, chaos, and all that math jazz: Making light of weighty ideas*, W.W. Norton, 2005. (274 pp.) Foreign language translations: German, 2009; Chinese, 2009; Thai, 2009; Japanese, 2010; Korean, 2010; Portuguese, 2010; Italian, 2011; Bulgarian.

(with David Marshall and Edward Odell) *Number Theory Through Inquiry*, MAA Textbooks, The Mathematical Association of America, 2007. (140 pp.)

(with Edward Burger) *The 5 Elements of Effective Thinking*, Princeton University Press, Princeton, NJ, 2012. (157 pp., and ebook and audible versions) (translations in Vietnamese, Czech, Italian, Korean, Spanish, Chinese simplified, Chinese complex, Japanese, Indonesian, Turkish, German, Arabic, Brazilian Portuguese, French, Russian, and Portuguese.)

(with Brian Katz) *Distilling Ideas: An Introduction to Mathematical Thinking*, in the *Mathematics Through Inquiry* subseries of MAA Textbooks, The Mathematical Association of America, 2013 (171 pp.)

(with Francis Su) *Topology Through Inquiry*, in the *Mathematics Through Inquiry* subseries of MAA Textbooks, AMS-MAA Press, 2020 (313 pp.)

Video courses in The Teaching Company Great Courses Series: (Each course consists of 24 half-hour lectures plus written materials, except Probability, which has only 12 lectures):

1. *Change and Motion: Calculus Made Clear*, (1st edition 2001, 2nd edition 2007)
2. *Meaning from Data: Statistics Made Clear*, 2006.
3. *What are the Chances? Probability Made Clear*, 2007.
4. *Mathematics From the Visual World*, 2009.
5. (with Edward Burger) *The Joy of Thinking: The Beauty and Power of Classical Mathematical Ideas*, 2003.

MOOC (Massive Open Online Course): *Effective Thinking Through Mathematics*, 2014-2022.

AWARDS

- Texas 10 Award, 2023
- Elected to membership in the Texas Philosophical Society, 2016
- Honorary Doctor of Science Degree, Pomona College, 2014
- Signature Course award for 'Creative Student Engagement', 2014
- Provost's Teaching Senior Fellow, 2013 (inaugural year)
- Independent Publisher Book Awards 2013, Silver Medal for *The 5 Elements of Effective Thinking*
- UT System Academy of Distinguished Teachers, 2013 (inaugural year)
- American Mathematical Society Fellow, 2012 (inaugural year)
- Plan II Parlin Fellow Award, 2011
- University of Texas Regents Outstanding Teaching Award, 2009 (inaugural year)
- Mathematical Association of America Deborah and Franklin Tepper Haimo National Award for Distinguished College or University Teaching of Mathematics, 2007
- Eyes of Texas Excellence Award, 2002
- Robert W. Hamilton Book Author Award for *The Heart of Mathematics*, 2001
- Friar Society Centennial Teaching Fellowship, 2000
- Academy of Distinguished Teachers, member, 1998-
- Chad Oliver Plan II Teaching Award, 1997
- Jean Holloway Award for Teaching Excellence, 1995
- Recreational Sports Super Racquets Champion, 1989
- President's Associates Teaching Excellence Award, 1989
- Board of Directors Member, Texas Lyceum Association, 1989-95
- Dad's Association Centennial Teaching Fellowship, Fall, 1987 (inaugural year)
- Excellence Award, Eyes of Texas, Fall, 1987
- Natural Sciences Council Teaching Excellence Award, April, 1985
- Minnie Stevens Piper Professor, 1984
- Honorable mention, Jean Holloway Award for Teaching Excellence, 1979
- Visiting Member, Institute for Advanced Study, Princeton, 1978-79
- Wisconsin Alumni Research Foundation Fellowship, 1972-74