University of Illinois at Chicago WISEST Visiting Scholar, February 25 - 26, 2016

Prof. Ingrid Daubechies, James B. Duke Professor of Mathematics, Duke University

BIOGRAPHICAL SKETCH

One of the foremost applied mathematicians of our time, Ingrid Daubechies was born in Belgium and studied physics at the Vrije Universiteit Brussel, obtaining a B.Sc. degree in 1975 and a Ph.D. degree in 1980. Between 1975-1987, she worked in the Department of Theoretical Physics of her alma mater, first as a Research Assistant and then as a Research Professor. In 1987, she moved to the USA, joining the Mathematical Research Center at AT&T Bell Laboratories as a Researcher and Rutgers University as a Professor of Mathematics. In 1993, Dr. Daubechies joined the Mathematics Department and the Program in Applied and Computational Mathematics at Princeton University, becoming the first woman Professor of Mathematics at Princeton. In 2010, she was elected the President of the International Mathematical Union - again the first woman to hold this position. In 2011, she joined Duke University as a James B. Duke Professor of Mathematics.

As a Researcher at Bell Labs, Dr. Daubechies became a leading authority on wavelet theory, constructing a class of wavelets that are now highly used in image compression. In more recent years, Dr. Daubechies' research has contributed to the development of analytic and geometric tools for the comparison of surfaces and has played a central role in the construction of video animations, with many medical and biological applications.

Throughout her career, Dr. Daubechies has been honored with some of the most prestigious awards and recognitions in sciences, including: the Louis Empain Prize for Physics (1984); the Steele Prize for Mathematical Exposition (1994); the Ruth Lyttle Satter Prize in Mathematics (1997); the Golden Jubilee Award for Technological Innovation from the Institute of Electrical and Electronics Engineers (IEEE) Information Theory Society (1998); the Basic Research Award from the German Eduard Rhein Foundation (2000); the US National Academy of Sciences Award in Mathematics (2000); the Guggenheim Fellowship (2010); the IEEE Jack S. Kilby Signal Processing Medal (2011); the Leroy P. Steele Prize for Seminal Contribution to Research from the American Mathematical Society (2011); the Benjamin Franklin Medal in Electrical Engineering from the Franklin Institute (2011); the Frederic Esser Nemmers Prize in Mathematics (2012); and BBVA Foundation Frontiers of Knowledge and Culture Award in Basic Science (with D. Mumford) (2013).

In addition to her extraordinary research contributions, Dr. Daubechies has been a formidable mentor and ambassador of mathematics. She has mentored over 25 doctoral students and over 5 postdoctoral fellows on research in mathematics. She has also been actively involved in the stimulation of mathematics, science, and technology worldwide, in developing countries in particular, contributing to far-reaching initiatives aimed at fostering richer learning and research environments for mathematicians and scientists.