



CELEBRATING WOMEN IN MATHEMATICS

INGRID DAUBECHIES

1954 - , Belgium - Daubechies received her BS degree in physics in 1975 and her PhD in physics in 1980 from the Free University Brussels. After teaching at the Free University Brussels for 12 years, she joined AT&T Bell Laboratories where she became a leading authority on wavelet theory. In 1987 she constructed a class of wavelets that were identically zero outside a finite interval, now among the most common type of wavelets used in applications. Since 1993 she has been a full professor in the Mathematics Department and in the Program in Applied and Computational Mathematics at Princeton University. She was the first woman full professor of mathematics at Princeton.



She received the Louis Empain Prize for Physics in 1984, awarded once every five years to a Belgian scientist on the basis of work done before age 29. Between 1992 and 1997 she was a fellow of the John D. and Catherine T. MacArthur Foundation and in 1993 was elected to the American Academy of Arts and Sciences. In 1994 she received the American Mathematical Society Steele Prize for Exposition for her book *Ten Lectures on Wavelets*. The American Mathematical Society awarded her the 1997 Ruth

Lytle Satter Prize in Mathematics for “her deep and beautiful analysis of wavelets and their applications.”

In 2000 Daubechies became the first woman to receive the National Academy of Sciences (NAS) Award in Mathematics, presented every 4 years for excellence in published mathematical research. The award honored her “for fundamental discoveries on wavelets and wavelet expansions and for her role in making wavelets methods a practical basic tool of applied mathematics.” In January 2005, Daubechies became just the third woman since 1924 to give the Josiah Willard Gibbs Lecture sponsored by the American Mathematical Society. Her talk was entitled “The interplay between analysis and algorithms.”

Biography courtesy of the Agnes Scott Project