Ingrid **Daubechies**

Élue Associé étranger le 8 décembre 2009 dans la section de Sciences mécaniques et informatiques

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Professeur de mathématiques à l'Université de Princeton.

Ingrid Daubechies, née le 17 août 1954 en Belgique, naturalisée américaine en 1996, est professeur de mathématiques à l'Université de Princeton. Elle a initié un important programme de mathématiques appliquées et computationnelles. Ses remarquables travaux sur l'analyse "temps-fréquence" et l'analyse "temps-échelle" ont bouleversé le traitement du signal et de l'image. Les "ondelettes de Daubechies" sont utilisées dans le standard de compression d'images JPEG 2000. Ingrid Daubechies a appliqué les ondelettes à de nombreux domaines scientifiques, en mathématiques, en ingénierie et à l'art.

Ingrid Daubechies, born in 1954 in Belgium, is now a professor of mathematics at Princeton University. She launched an important program in applied and computational mathematics. Her outstanding contributions to "time-scale" and "time-frequency" analysis opened new avenues in signal and image processing. Daubechies wavelets are now used in JPEG2000, the new standard in still image compression. Ingrid Daubechies applied her wavelets in many scientific fields ranging from mathematics to art.

Curriculum vitae

1975-1984	Research Assistant; Dept. for Theoretical Physics, Vrije Universiteit Brussel (Belgium)
1984-1987	Research Professor; Dept. for Theoretical Physics, Vrije Universiteit Brussel
1987-1994	Technical Staff Member; Mathematics Research Center, AT&T Bell Laboratories (USA)
1991-1993	Professor; Mathematics Department, Rutgers University (USA)
1994-present	Professor; Mathematics Department and Program in Applied and Computational Mathematics, Princeton University
1997-2001	Director; Program in Applied and Computational Mathematics, Princeton University
2004-present	William R. Kenan, Jr. Professorship at Princeton University

Membership

1993 Member of the American Academy of Arts and Sciences

1998 Member of the National Academy of Sciences (USA)

1998 Fellow of the Institute of Electrical and Electronics Engineers, Inc.

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1999 Foreign Member of the Royal Netherlands Academy of Arts and Sciences
2003 Member of the American Philosophical Society
2007 Honorary Member of the London Mathematical Society
2005 Docteur Honoris Causa, Université Pierre et Marie Curie)

Awards
1984 Louis Empain Prize for Physics
1994 American Mathematical Society Steele Prize for Exposition
1994 Plenary Lecturer at the International Congress of Mathematicians in Zurich
1997 American Mathematical Society Ruth Lyttle Satter Prize
1998 The International Society for Optical Engineering Recognition of Outstanding Achievement
1998 IEEE Information Theory Society Golden Jubilee Award for Technological Innovation
2000 National Academy of Sciences Medal in Mathematics (USA)
2000 Eduard Rhein Foundation 2000 Basic Research Award
2005 Gold Medal of the Flemish Royal Academy of Arts and Sciences
2008 Pioneer Prize International Council for Industrial and Applied Mathematics

Le 18 mai 2010

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