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Algebraic Complexity Theory

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DALRYMPLE LECTURE

Overby Center Auditorium
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Algebraic Complexity Theory

by

Jerzy Weyman

Abstract: I will discuss the basic notions related to the complexity theory. The classes of P and NP problems will be defined, with examples given. Besides discussing the statements of the problems, I will talk about the effectiveness of algorithms used in linear algebra (multiplying matrices and solving the systems of linear equations). No previous knowledge of complexity theory will be assumed, however some knowledge of linear algebra (matrices and their multiplication) will be needed.

Jerzy Weyman got his Ph.D. from Brandeis University in 1980. His interests span several branches of algebra: Commutative Algebra, Algebraic Geometry, Representation Theory and Invariant Theory.

Since 1985 until 2013 he held a position at Northeastern University in Boston. Since 2013 he is Joan and Stuart Sydney Professor of Mathematics at the University of Connecticut at Storrs.

Weyman was the recipient of Kuratowki Prize of the Polish Mathematical Society in 1983.

He got the Humboldt Research Prize in 2011 and was the recipient of the Sierpiński medal in 2015.

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