The Alfred Brauer Lectures
2017
Professor Mikhail Khovanov
Department of Mathematics, Columbia University

Mikhail Khovanov is a recognized leader of the "categorification" program, which plays an important role in modern mathematics and physics. Khovanov earned his Ph.D. in 1997 under the supervision of Professor Igor Frenkel at Yale University. Shortly thereafter he came up with his famous idea of categorifying the Kauffman bracket, which is a version of the celebrated Jones polynomial of links in a 3-sphere. This was the first example of the categorification which interprets polynomial invariants as Poincare polynomials of new homology theories. The construction of Khovanov homology was amazingly fruitful and very unexpected.

A further categorification of the HOMFLY-PT polynomial of links and a categorification of quantum groups are other major achievments of Khovanov which have now important implications in low-dimensional topology, algebraic and symplectic geometry, geometric representation theory and string theory.

Lectures:
- Wednesday, March 29, 2017 from 3:30 – 4:30 in 215 Phillips Hall*
- Thursday, March 30, 2017 from 3:30-4:30 in 332 Phillips Hall**
- Friday, March 31, 2017 from 3:30-4:30 in 332 Phillips Hall**

Please mark your calendar

*There will be a reception in the Mathematics Faculty/Student Lounge on the third floor of Phillips Hall, Room 330, 4:45—6:00 pm, on Wednesday, March 29, 2017.

**Refreshments will be available there at 3:00 before the second and third lectures.

Lev Rozansky will coordinate Mikhail's visit; please contact him if you have questions/suggestions.