Mathematics and CS Seminar

Knot Floer homology and the Upsilon function

Andras Stipsicz
Alfréd Rényi Institute of Mathematics

Host: Tamas Hausel

Knot Floer homology (an invariant discovered by Peter Ozsvath and Zoltan Szabo around 2001) provides a number of invariants to study knots, links, and relations among them.
The knot Floer chain complex (a slightly complicated algebraic object associated to a knot by the theory) can be used to define these numerical invariants.
More recently, in a joint project with P. Ozsvath and Z. Szabo, we found a piecewise linear continuous function (the Upsilon-function of the knot) determined by the knot Floer chain complex.
In the lecture I plan to review the most important knot invariants, starting with the Alexander polynomial. After the description of the knot Floer chain complex, I will outline the definition of the Upsilon function, and will present some simple applications.

Wednesday, June 7, 2017 01:45pm - 03:45pm
Big Seminar room Ground floor / Office Bldg West (I21.EG.101)

This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station. Please find a schedule of the ISTA Shuttle on our webpage: https://ista.ac.at/en/campus/how-to-get-here/ The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.