מכון ויצמן למדע

THE WEIZMANN INSTITUTE OF SCIENCE

FACULTY OF MATHEMATICS AND COMPUTER SCIENCE

Seminar in Geometry and Topology

Room 155 ,Ziskind Building
on Sunday, Mar 31, 2019
at 15:00

NOTE UNUSUAL DAY AND TIME

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Segre indices, Welschinger weights, and an invariant signed count of real lines on real projective hypersurfaces.

Abstract:

As it was observed a few years ago, there exists a certain signed count of real lines on real projective hypersurfaces of degree 2n+1 and dimension n that, contrary to the honest "cardinal" count, is independent of the choice of a hypersurface, and by this reason provides, as a consequence, a strong lower bound on the honest count. Originally, in this invariant signed count the input of a line was given by its local contribution to the Euler number of an appropriate auxiliary universal vector bundle.

The aim of the talk is to present other, in a sense more geometric, interpretations of the signs involved in the invariant count. In particular, this provides certain generalizations of Segre indices of real lines on cubic surfaces and Welschinger-Solomon weights of real lines on quintic threefolds.

This is a joint work with S.Finashin.

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