Rares Rasdeaconu* (rares.rasdeaconu@vanderbilt.edu), Department of Mathematics, Vanderbilt University, 1326 Stevenson Center, NASHVILLE, TN 37240, and Viatcheslav Kharlamov. Counting real rational curves on K3 surfaces.

The counting of rational curves on complex K3 surfaces representing primitive homology classes is governed by the Yau-Zaslow formula. An analog over the reals has been identified by Kharlamov and Rasdeaconu. Extending such formulae to the non-primitive case leads to the necessity of a better understanding of moduli spaces of stable, rank one sheaves on curves, possibly reducible and non-reduced. The recent developments in this direction will be presented. The talk is based on a recent joint work with V. Kharlamov. (Received July 13, 2019)