Abstract
We provide a new ,,rainbow" version of Tverberg's 1966 multiple intersection theorem. It constitutes a considerable (unexpected) strengthening of Tverberg's theorem, but it also provides an optimal bound for the 1990 ,,colored Tverberg problem" (tight for the prime case, and asymptotically-optimal in the general case). Our first proof for this used equivariant obstruction theory, but in the lecture I will sketch a much simpler degree-theoretic argument, which was independently also provided by Vrecica and Zivaljevic. (Joint work with Pavle V. Blagojevic and Benjamin Matschke.)