

**Djordje BARALIĆ**

**Topological obstructions to totally skew embeddings**

*Abstract:* In this talk we are going to present recent results from joint paper Topological obstructions to totally skew embeddings with B. Prvulović, G. Stojanović, S. Vrećica and R. Živaljević. Following paper of Ghomi and Tabachnikov, we define totally skew embedding of manifolds and present their general results. This problem is naturally related to the question of estimating the geometric dimension of the stable normal bundle of the configuration space  $F_2(M)$  of ordered pairs of distinct points in  $M$ . We demonstrate that in a number of interesting cases the lower bounds obtained by this method are quite accurate and very close to the best known general upper bound. Using the Stiefel-Whitney classes we found some obstructions for certain manifolds, such as projective spaces, products of projective spaces, Grassmanians etc. We present some general conjectures and open problems related to this problem.