

Márton Beke

Title: New exotic four-manifolds with $\mathbb{Z}/2\mathbb{Z}$ fundamental group

Abstract: We extend a construction of Stipsicz-Szabó of infinitely many irreducible exotic smooth structures of some closed four-manifolds with even b_2^+ and fundamental group $\mathbb{Z}/2\mathbb{Z}$. We use the double node surgery and rational blow down constructions of Fintushel-Stern on some elliptic fibrations equipped with a free involution. The construction is done in an equivariant manner and the factor manifolds are distinguished by the Seiberg-Witten invariants of their universal covers. This is joint work with László Koltai and Sarah Zampa.