Genus zero PALF structures on the Akbulut cork and exotic pairs

Takuya Ukida
Tokyo Institute of Technology

Abstract. Loi and Piergallini proved that every compact Stein surface admits a PALF (positive allowable Lefschetz fibration over a 2-disk with bounded fibers). Akbulut and Yasui introduced cork twist to construct various families of arbitrary many compact Stein surfaces which are mutually homeomorphic but not diffeomorphic (i.e. exotic pairs). In this talk, we construct genus zero PALF on the Akbulut cork and exotic pairs.