The rational sectional category of certain maps

JOSÉ GABRIEL CARRASQUEL-VERA

Abstract. We give a simple algebraic characterisation of the sectional category of rational maps admitting a homotopy retraction. As a particular case we get the Felix-Halperin theorem for the rational Lusternik-Schnirelmann category and we prove the conjecture of Jessup-Murillo-Parent on rational topological complexity. We also give a characterisation for relative categories in the sense of Doeraene-El Haouari.

Mathematics Subject Classification (2010): 55M30 (primary); 55P62 (secondary).