

1096-53-1112 **Michael B. Deutsch*** (mdeutsch@impa.br), IMPA, Estrada Dona Castorina 110, Rio de Janeiro, RJ 22460-320, Brazil. *Scharzian derivatives and Euclidean-minimal surfaces*. Preliminary report.

The classical Schwarzian derivative of a meromorphic function has been generalized in many contexts and from a variety of points of view. An impressive example due to Osgood and Stowe is a Schwarzian concept for conformal maps between Riemannian manifolds, a tensor inspired by a similar derivative for a harmonic map, obtained by considering the conformal factor of an associated minimal surface in Euclidean 3-space. In this talk we consider an altogether different and somewhat narrower generalization, obtained by reasoning in just the opposite direction: Starting with a harmonic map (a minimal surface) in Euclidean n -space, we will associate a Schwarzian derivative by considering the complex conformal geometry of the Gauss lift. The result can be interpreted as a geometric invariant which, together with a generalized Hopf tensor, determines a minimal surface up to a certain non-isometric transform which we explicitly describe. (Received September 13, 2013)