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Bingyuan Liu* (bingyuan@ucr.edu), 900 University Ave, Surge 275A, Riverside, CA 92521.

Geometric Analysis on the Diederich–Fornæss index.

Geometric analysis in differential geometry is a powerful tool in Riemannian geometry. It has been used to solve many problems in Riemannian geometry. In the field of several complex variables, it was not the most popular weapon to attack questions. One of the reasons is that many problems in the several complex variables relates to some types of differential equations of complex-valued functions which is currently not well understood. In this talk, we consider problems in the Diederich–Fornæss index with a viewpoint of geometric analysis and see what we obtain. This talk includes a series results made by Krantz–Peloso–Liu and myself. (Received December 24, 2016)