

Colloquium

University of Notre Dame
Department of Mathematics

Debraj Chakrabarti - Central Michigan University

Speaker: Debraj Chakrabarti

Central Michigan University

Will give a lecture entitled

Duality in the theory of the Cauchy-Riemann equations

Date: Wednesday, October 30, 2019

Time: 4:00 PM

Location: 129 Hayes-Healy Hall

Departmental Tea: Tea in Room 257 (lounge in Hurley Hall) at 3:30 p.m.



Abstract:

Duality based methods have been used in topology since Poincaré, and in complex analysis since Serre. In the quantitative theory of the Cauchy-Riemann equations using L^2 -methods, analogs of Serre duality have been known and used for a long time. In this talk, we discuss another type of duality that has been recently used in function theory, which is that of the cohomologies of the "hole" and "annulus". This can be thought of as the analog in complex analysis of Alexander-Pontrjagin duality in topology. This is joint work with Phil Harrington.