

TEMPLE UNIVERSITY
Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, September 14, 2015, 2:40 p.m.

Some new results on Dolbeault cohomology groups

by Christine Laurent-Thiébaud

Department of Mathematics
University of Grenoble

We will study the solvability of the Cauchy-Riemann equation with prescribed support in different functional spaces. First we will prove that the classical isomorphism between Dolbeault cohomology groups for currents and smooth form does not hold anymore in that setting. Using Serre duality, we note that solving the Cauchy-Riemann equation with prescribed support is related to solving the Cauchy-Riemann equation with regularity conditions up to the boundary. We then derive Hausdorff property for some Dolbeault cohomology groups.