



Speaker: Robin Hartshorne
University of California at Berkeley

Wednesday, November 12, 2014
4:00 PM
231 Hayes-Healy Hall

Title: Duality in Topology, Algebraic Geometry, and Commutative Algebra

Abstract:

To show where modern duality theorems come from, I will give a semi-historical talk starting with Poincaré duality in topology, going on to duality theorems in complex manifolds. Then Serre's introduction of sheaf theory and cohomology into abstract algebraic geometry, with his duality theorem, followed by Grothendieck's generalizations. This leads to the introduction of local cohomology in commutative algebra, and the corresponding local duality theorems.