REBECCA RG, George Mason University
Classifying neural codes using algebraic tools

The neural ideal was introduced by Curto, Itskov, et al in 2013 to study the spatial firing patterns of a set of neurons, turning problems in neuroscience and coding theory into algebraic questions. In this talk I will show how homological invariants such as Betti numbers can be applied to study and classify neural ideals. This work is joint with Hugh Geller, Alexandra Seceleanu, and Nora Youngs.