Zero Forcing and its Applications

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Zero forcing is a type of propagation on a simple, undirected graph based on the color change rule: Given graph G, if each vertex of G is colored either white or blue, and vertex v is a blue vertex with only one white neighbor w, then change the color of w to blue. In this talk, we will discuss the role of zero forcing in systems control, electrical engineering, and linear algebra.

Biography

Michael Young is an assistant professor in the Department of Mathematics at Iowa State University. He obtained his PhD in mathematics at Carnegie Mellon University. His primary research interests are in discrete mathematics, including graph theory, combinatorics and combinatorial matrix theory.