k-dependent q-colorings of the integers

Abstract:

In 2008, Oded Schramm asked the following question: For what values of k and q does there exist a stationary, k-dependent sequence of random variables with values in 1,2,...,q assigning different values to consecutive integers? Schramm proved a number of results related to this question, and speculated about what the answer might be in general. As it turns out, the truth is quite different from his informed guess. This is joint work with A. E. Holroyd.