
ALEX ROSA, McMaster University

Circulants as signatures of cyclic Steiner triple systems

With each cyclic Steiner triple system we associate a certain set of circulants called its *signatures*. From among the set of all circulants of appropriate degree, a circulant is a signature if it is a signature of some cyclic Steiner triple system; otherwise, it is a nonsignature. We show the existence of nonsignatures, and discuss questions related to the enumeration of signatures and nonsignatures. (Joint work with Mariusz Mészka.)