PhD Project(s) for inclusion on the UCD-Brazil Science Without Borders Website.

Principal Investigator details:

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Project title: Random Network Coding and Designs over GF(q)

Priority Research area: Computing and Information Technology

Abstract: Random Network Coding emerged by a price-winning paper by R. Koetter and F. Kschischang at the end of the previous decade. It forms a technology that enables to increase reliability of information transmission in a network regardless of its topology. An important class of network codes is that of Grassmannian codes which are closely related to designs over finite fields. This project is devoted to a construction of new classes of network codes along with the development of efficient encoding and decoding algorithms.