TEXAS STATE UNIVERSITY

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Discrete Mathematics Seminar

Time: Friday, Nov 20, 2020, 9:00 - 10:00 AM (Central Time)
Title: Orientably-regular maps of Euler characteristic $-2p^2$
Speaker: Dr. Jicheng Ma, Chongqing Key Lab. of Group & Graph Theories and Applications, Chongqing University of Arts and Sciences
Zoom Link: Meeting ID: 955 6653 0916 Password: 753321

Abstract:

Conder and the author [M. Conder and J. Ma, Regular maps with simple underlying graphs, *J. Combin. Theory Ser. B*, 110 (2015) 1–18] studied the orientably-regular maps with simple underlying graphs and showed that there exists at least one orientably-regular map of genus $g \equiv 0, 1, 3, 4$ or $5 \mod 6$ with simple underlying graph, and conjectured that there exists at least one for every positive integer g. In this talk, I'll intruduce a classification of all orientably-regular maps of Euler characteristic $-2p^2$ for prime p (equivalently, of genus p^2+1). This gives some ideas of constructing orientably-regular maps of genus $g \equiv 2 \mod 6$ as $p^2+1 \equiv 2 \mod 6$ for $p > 3$.