



# Mathematical Sciences 2026 Colloquium Series



Dr. Enriquez Gomez-Leos

Western Colorado University



February 06, 2026, at 3:00pm  
Bell Hall Building, Room 130

and online via Zoom *Scan the QR-code to  
access the link.*



## On Randomly Perturbed Multipartite Graphs

**Abstract:** Many results in extremal graph theory concern minimum degree conditions that guarantee the existence of a perfect tiling in a host graph  $G$  by a fixed subgraph  $H$ . Recall that the Erdős-Rényi random graph  $G(n,p)$  consists of the vertex set  $[n]$  where each edge is present, independently, with probability  $p=p(n)$ . In this regime, a key question is to determine the threshold for which  $G(n,p)$  contains a perfect  $H$ -tiling. In 2003, Bohman, Frieze, and Martin introduced the randomly perturbed graph model which connects the two questions together. In this talk we discuss a multipartite variant of this graph model and determine the threshold for a perfect clique tiling. This is joint work with Ryan R. Martin.

**Hosted by: Maria C. Mariani**

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