ELISSA ROSS, Fields Institute

The rigidity of periodic bar body frameworks

From the perspective of rigidity theory, d-dimensional bar body frameworks are a well understood class of structures. That is, good combinatorial characterizations exist to predict the generic rigidity of such graphs in any dimension. In this talk, we consider the question of infinite periodic bar body frameworks, which we study as multigraphs on a torus. We describe necessary conditions for the rigidity of these frameworks, and outline what is known about the sufficiency of these conditions.