

Meeting: 1002, Pittsburgh, Pennsylvania, SS 2A, Special Session on Convexity and Combinatorics

1002-52-240 **Ileana Streinu*** (streinu@cs.smith.edu), Computer Science Department, Smith College,
Northampton, MA 01063. *Orienting the Rigidity Matroid*. Preliminary report.

In dimension two, infinitesimally (minimally) rigid graphs have a well understood combinatorial structure captured by Laman's condition. Moreover, they form a matroid which is always realizable.

In this talk I will discuss an approach for orienting the 2-rigidity matroid via its circuits and a few related problems that emerged from this direction of research. (Received September 15, 2004)