Ego Network Analysis of Upper Division Physics Student Survey

ERIC BREWE, Florida Intl Univ — We present the analysis of student networks derived from a survey of upper division physics students. Ego networks focus on the connections that center on one person (the ego). The ego networks in this talk come from a survey that is part of an overall project focused on understanding student retention and persistence. The theory underlying this work is that social and academic integration are essential components to supporting students continued enrollment and ultimately graduation. This work uses network analysis as a way to investigate the role of social and academic interactions in retention and persistence decisions. We focus on student interactions with peers, on mentoring interactions with physics department faculty, and on engagement in physics groups and how they influence persistence. Our results, which are preliminary, will help frame the ongoing research project and identify ways in which departments can support students.

This work supported by NSF grant PHY 1344247