1042-03-235 **Rehana Patel*** (patel@math.harvard.edu), Department of Mathematics, Harvard University, One Oxford Street, Cambridge, MA 02138. *Theories that exhibit SOP_3 but not SOP_4.*

Theories with the n-strong order property (SOP_n), $n > 2$, form a hierarchy within Shelah's classification of unstable theories. Among these, theories that exhibit SOP_3 but not SOP_4 are of particular interest. In my talk I will describe the SOP_n hierarchy, discuss conditions under which a theory will fail to have SOP_4, and provide graph-theoretic examples of such theories. (Received August 20, 2008)