

Date:12th of April 2013.

Speaker: Aart Blokhuis (joint work with Andries Brouwer)

Title: Characterization of a graph by its spectrum.

Abstract: We characterize a 55-point graph by its spectrum $4^1, (-2)^{10}, (-1 \pm \sqrt{3})^{10}, ((3 \pm \sqrt{5})/2)^{12}$. No interlacing is used: examination of $\text{tr } A^m$ for $m \leq 7$ together with study of the representation in the eigenspace for the eigenvalue -2 suffices.