

UNIVERSITY OF DELAWARE
DEPARTMENT OF MATHEMATICAL SCIENCES
DISCRETE MATHEMATICS SEMINAR

Friday April 16, 2004, 4:00pm, Room 436 Ewing Hall

Codes, Triangles and Graphs, Oh My!

Keith Mellinger, Mary Washington College

We look at the construction of some incidence structures in finite affine and projective spaces that involve caps and arcs. These incidence structures give rise to some extremal graphs and low-density parity-check codes. We use the geometry to analyze these graphs and codes and suggest some ideas for future work. This is joint work with Dhruv Mubayi.