

UNIVERSITY OF DELAWARE
DEPARTMENT OF MATHEMATICAL SCIENCES
DISCRETE MATHEMATICS SEMINAR

Friday March 15, 2002, 3:30pm, Room 436 Ewing Hall

**Space-Time Codes,
Compositions of Quadratic
Forms, and Orthogonal Designs**

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This talk will be a more detailed description of Dr. Calderbank's talk on March. 8. I will describe the math. model and explain the space-time design criteria in more details. Then, I will start to describe the general space-time code design problem and then describe the link between orthogonal designs, compositions of quadratic forms, and space-time codes. While most of the existing results were back to the 20's, I will present some of the new results we recently obtained in this area.