COMATHEMATICS COLLOQUIUM

Prof. Dennis DeTurck University of Pennsylvania

"Exploiting invariance, from freshman calculus to linking integrals"

Monday, March 24, 2008

Talk at 4:15 - Park 328 Tea at 3:45 - Park 355, Math Lounge

Abstract:

Many mathematical problems that arise naturally have obvious or subtle symmetries that can be exploited to help find solution formulas. We'll survey some of these from mathematical analysis and geometry, ranging from the most basic calculus problems of computing derivatives and integrals to finding explicit formulas for calculating linking integrals in various geometric settings.

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