

Department of Mathematical Sciences

Seminar Announcement

**Prof. Dan Isaksen
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Quaternions, Octonions, and Beyond

Thursday, March 20, 2008

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2:45 – 3:45 PM

Science East – Room 118

There are three well-known real division algebras: the real numbers, the complex numbers, and the quaternions. The octonions are another real division algebra of dimension 8; it's more obscure than the other three but still classical. I will describe the octonions and explain some of their uses. These examples generalize into a famous family called the Cayley-Dickson algebras. I will discuss some of the properties of the 16-dimensional Cayley-Dickson algebra.