

BI-CO MATHEMATICS COLLOQUIUM

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*“Mathematical relativity and nonnegative
scalar curvature”*

Monday, February 14, 2010

Talk at 4:15pm – KINSC H109

Tea at 4:00pm – KINSC Math Lounge, H208

ABSTRACT: Einstein's theory of gravitation, known as general relativity (GR), is nearly a century old but continues to inspire new developments in mathematics, particularly in geometric analysis. Without assuming any physics, I will give a brief overview of the main ideas behind GR with an emphasis on geometry. One theme will be how physical, non-rigorous arguments can lead to geometric conjectures, and ultimately theorems. Time permitting, he will discuss some recent work on global consequences of nonnegative scalar curvature.

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