

UNIVERSITY OF TEXAS AT DALLAS - DEPARTMENT OF PHYSICS
PHYSICS COLLOQUIUM

<http://www.utdallas.edu/dept/physics/colloquia1.htm>

Monday, February 7, 2005; 4:00-5:00 PM
in Kusch Auditorium, FN 2.102

**Black Holes: Computing Their Formation, Accretion,
and Collision**

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Black holes are wonderfully exciting objects, and their study forms a nexus for a number of disparate fields, from string theory to fluid dynamics. Modeling them computationally, one finds surprising behavior at the threshold of their formation. Once formed, black holes continue to interest by colliding with other black holes or accreting matter from neighboring stars, processes expected to yield observable radiation in the form of gravitational waves. Here I describe my research on black hole dynamics and the computational efforts needed to model such difficult equations.