

	WEEKLY CALENDAR Physics & Astronomy 202 Nicholson Hall	
Baton Rouge, LA 70803-4001 http://www.phys.lsu.edu	Louisiana State University February 9, 2004	Tel: (225) 578-2261 Fax (225) 578-5856



GENERAL SEMINAR

"The Search for Naked Singularities"

Dr. Gary Horowitz
 (Chancellor's Distinguished Lecture Guest Speaker)
 University of California - Santa Barbara

Host: *Dr. Jorge Pullin*
Thursday, February 12, 2004, 3:40 PM in Room 152 Coates Hall

ABSTRACT

What happens when a star undergoes complete gravitational collapse? Most people assume that it will form a black hole. Einstein's general theory of relativity indeed predicts this outcome for stars that are nearly spherical. Inside the black hole, the matter continues to collapse to infinite density, forming a spacetime singularity which is hidden by the event horizon. However for highly nonspherical collapse (or other strong gravitational phenomena such as the collision of two black holes) it is possible that a singularity will form that is not hidden by an event horizon. These are called naked singularities. Perhaps the most important open problem in general relativity today is to determine if naked singularities can be produced. I will review what is known about this question and describe some recent indications that the answer is yes.

Special Seminar

"Challenges in Black Hole Evolutions"

Dr. Manuel Tiglio
 LSU
 Host: Dr. Ed Seidel
 Monday, February 9, 2004, 3:40 PM
 Room E-130 Howe-Russell

Special Seminar

"Simulating Space Weather"

Dr. Ramon Lopez
 University of Texas - El Paso
 Host: Dr. Jorge Pullin
 Tuesday, February 10, 2004, 3:40 PM
 Room 152 Coates



"No naked singularities in homogeneous, spherically symmetric bubble spacetimes?" **Olivier Sarbach and Luis Lehner**. *Physical Review D* 69, 021901(R) (2004).

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