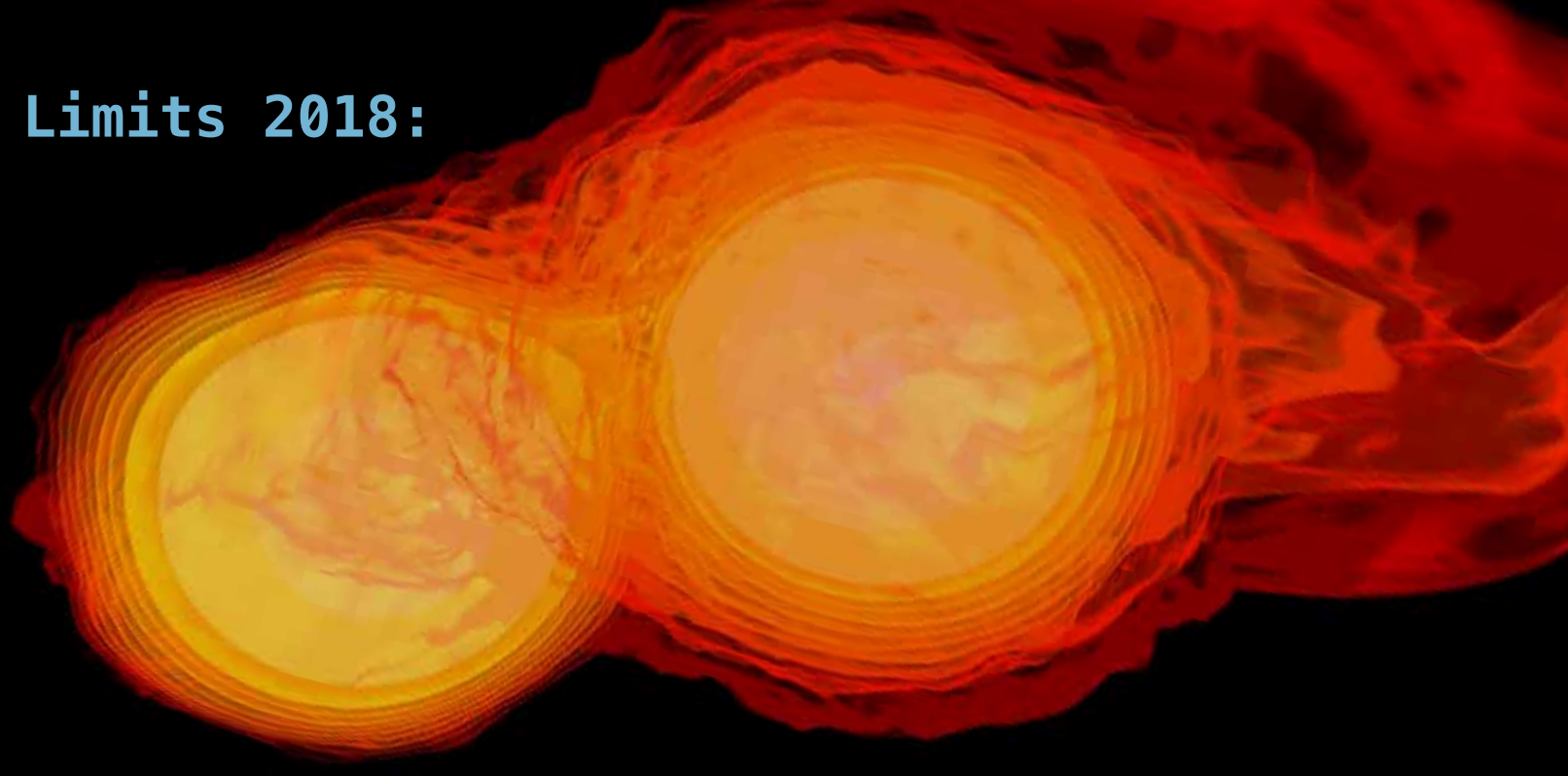
Boston City Limits 2018:



SUMMER SCHOOL ON

Mathematical General Relativity

& the Geometric Analysis of Waves of Fluids

June 11–22 2018
MIT (Cambridge, MA)

The purpose of this school is to introduce advanced undergraduate and beginning graduate mathematicians to a variety of topics in the theory of nonlinear evolution-type PDEs, with a focus on wave-like equations motivated by geometric and physical considerations. The courses will integrate background material with cutting-edge research topics.

Organizer:
- Jared Speck

Lecturers:
- Stefanos Aretakis *(University of Toronto)*
- Marcelo Disconzi *(Vanderbilt)*
- Andrew Lawrie *(MIT)*
- Jared Speck *(MIT)*

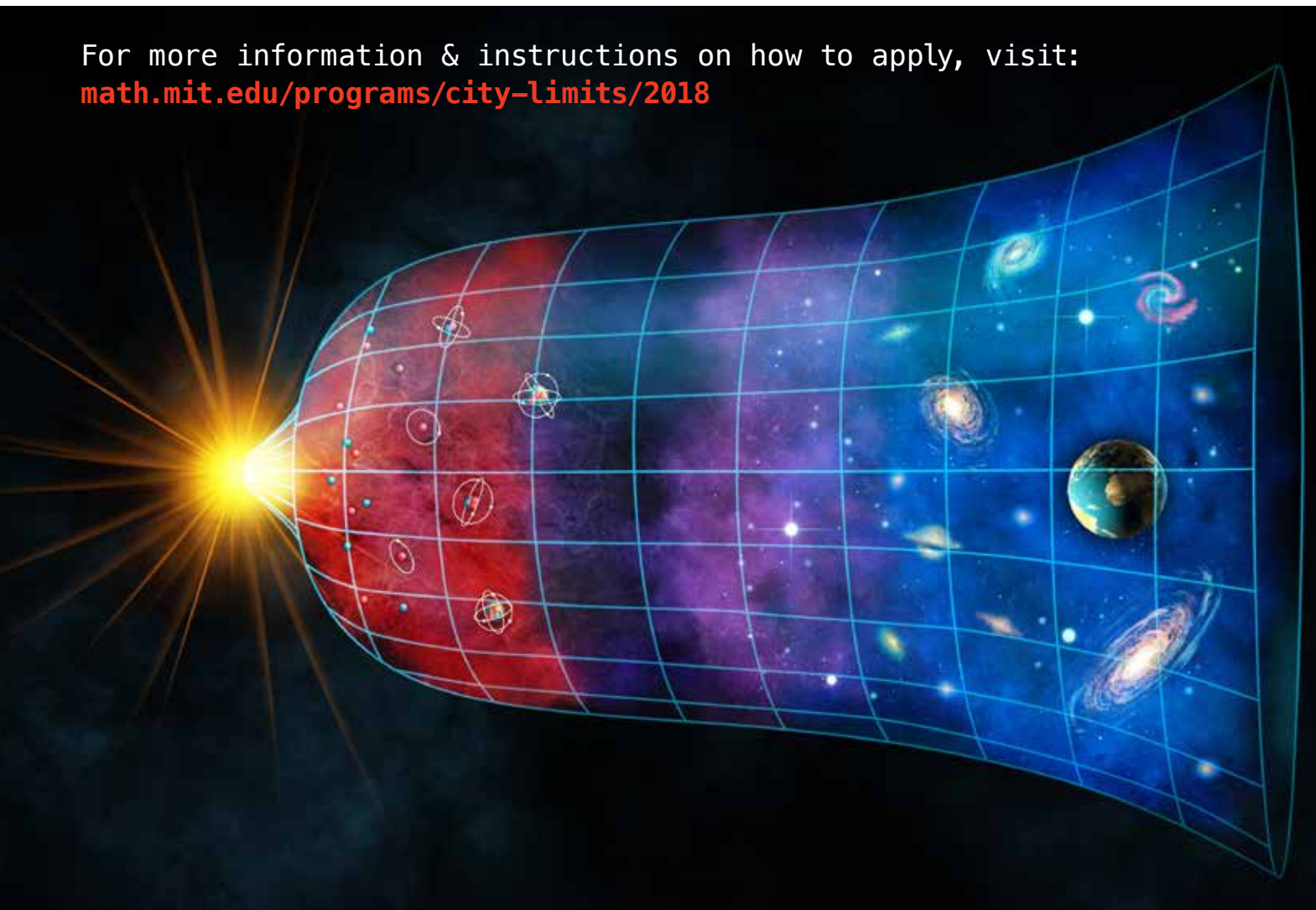
Topics:

General Relativity
- The evolution problem in general relativity
- Stability of Minkowski spacetime
- Formation of trapped surfaces
- Black holes
- The memory effect
- Singularity formation
- Stability of the Big Bang

Fluid Mechanics
- Classical fluid mechanics
- Relativistic fluid mechanics
- Relativistic fluids with viscosity
- Free boundary problems

Wave Equations
- Solitons
- Bubbling
- Blowup

For more information & instructions on how to apply, visit:
math.mit.edu/programs/city-limits/2018



A special thanks to MIT and the NSF for their generous support.