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# A first course on Numerical Relativity

## Instituto de Física Teórica - UNESP, São Paulo, Brasil

### March 28 - April 1, 2016

**Luis Lehner
Perimeter Institute**

**Frans Pretorius
Princeton University**

This course will cover the fundamentals of solving Einstein equations numerically in strongly gravitating/dynamical regimes. Emphasis will be on fundamentals to lay a solid foundation for venturing into Numerical Relativity.

Topics to be covered include: Numerical Analysis for Partial Differential Equations, Formulations of Einstein equations, Hydrodynamics and basics of applications for Astrophysics, fundamental questions on General Relativity and Holography. While no formal training on coding will be assumed, it would be helpful if participants have a basic knoweldge of Maple, Mathematica, Matlab, Fortran, C or Python to carry out related exercises. *Financial support will be available for graduate students and researchers from South America that would like to attend the minicourse.*

**The application deadline is January 22, 2016**

The online registration form and more information can be found at:

## www.ictp-saifr.org/relativity2016

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