

復旦大學



优秀学生培养计划暑期课程 Astrophysics of Compact Stars

日期：8月17日--8月28日
地点：复旦大学物理系

主讲：Armen Sedrakian (Frankfurt University, Germany)
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课程简介：

This series of lectures concentrates on the properties of dense matter and astrophysics of compact stars in general. We will discuss in detail the equation of state of dense matter as found in white dwarfs and neutron stars. Phenomenological and quantum theoretical models of dense matter will be discussed. We will also discuss the macroscopic properties of compact stars, their structure and cooling. Some exercises will be provided, which will help to acquire practical skills.

Topics include:

- ☆ Elementary of standard model of particle physics
- ☆ Thermodynamics of elementary particles
- ☆ Equilibrium of stars in Newtonian theory and in general relativity
- ☆ Dense nuclear matter
- ☆ Cooling of white dwarfs and neutron stars
- ☆ Recent developments

