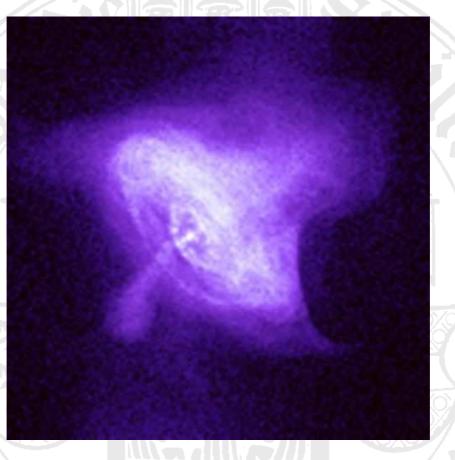


Fakultät für Mathematik und Physik Albert-Ludwigs-Universität Freiburg

PHYSIKALISCHES KOLLOQUIUM

AM 16. JANUAR 2012 UM 17 UHR C.T.

IM GROßEN HÖRSAAL



THE EXTREME PHYSICAL PROPERTIES OF NEUTRON STARS

PROF. DR. JOACHIM TRÜMPER

MAX-PLANCK-INSTITUT FÜR EXTRATERRESTRISCHE PHYSIK GARCHING

Fourty-four years after the discovery of the first radio pulsar more than 2000 neutron stars are known showing a variety of manifestations - normal and millisecond pulsars, rotating radio transients, pulsating and bursting X-ray sources in binary systems, anomalous X-ray pulsars and soft gamma ray repeaters, as well as isolated neutron stars which emit only thermal radiation in the X-ray and optical bands. In my talk I will discuss what we have learned from observations about the basic physical properties of neutron stars and the conditions of matter at super-nuclear densities.