## **Nuclear Physics in Astrophysics III**

XXI International Nuclear Physics Divisional Conference of the European Physical Society A Europhysics Conference Dresden, Germany 26 – 31 March 2007

## FIRST CIRCULAR (dated 2 November 2006)

The Nuclear Physical Division of the European Physical Society has authorized the Institute of Radiation Physics at the Forschungszentrum Dresden-Rossendorf to organize the next Conference on Nuclear Physics in Astrophysics as Divisional Conference of the EPS.

Nuclear Physics in Astrophysics-3 will take place from March 26 to March 31, 2007 at Technische Universitaet Dresden. In the following sessions we plan to cover these subjects:

Big Bang Nucleosynthesis

Big bang models

Network calculations and cross sections

Stellar Nucleosynthesis and Low Cross Section Measurements

Static stellar burning

Direct and indirect cross section measurements

Neutron capture and the s-process

Explosive Nucleosynthesis and Nuclear Astrophysics with Photons

Explosive astrophysical scenarios

Radiative capture and electromagnetic dissociation

The quest of the p-nuclides

Nuclei far from Stability and Radioactive Ion Beams

Transfer reactions and capture

Masses and lifetimes

Level densities

Dense Matter in Neutron Stars and Relativistic Nuclear Collisions

**Nuclear Compressibility** 

Flavour degrees of freedom

Neutrinos in Nuclear Astrophysics

Gamov-Teller strength and charge exchange reactions

Neutrino induced processes in stars

In addition to invited talks by active researchers in our field, room for shorter contributions and ample time for lively discussions we intend to offer our guests glances on the impressive revival of Dresden, once and again example for the feastful life near to a baroque court.

NPA3 will take place not far from the historical centre with the recently reopened Frauenkirche. We will try to make possible visits to Dresden's Zwinger, one of the extraordinary galleries of European art, to the world famous museum of Meissen porcelain, to the "Green Vault" with its exceptional collection of fine jewellery and to the unique collection of historic scientific instruments in the Mathematisch-Physikalische Salon.

Please let us know by e-mail if you intend to come and eventually present a contribution to our program. Details of importance for your attendance may be found at <a href="http://www.fzd.de/NPA3">http://www.fzd.de/NPA3</a>, where you can also download a poster to spread the news about NPA3 -- which we would greatly appreciate. For further questions the conference secretary, Mrs. Anne Liebezeit, can be reached via: <a href="mailto:npa3@fzd.de">npa3@fzd.de</a>.

Hoping to see you at Dresden next March, Eckart Grosse for the local organizing committee.