

Seminarium Astrofizyczne
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ul. Pasteura 7, sala 404

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Numerical studies of Neutron Star atmospheres

Neutron stars are very complicated to study due to the extreme conditions occurring there. Mean densities are comparable to the atomic density. The magnetic fields strength on the surface ranges from 10^4 up to 10^{11} Tesla. Gravity is strong enough that it acts as a gravitational lens and bends the radiation emitted by the neutron star that the areas normally invisible become visible. The interaction between matter and radiation is very complicated. We must consider scattering processes, absorption, emission and illumination. In this talk I will present methods and result that allow us to investigate the properties of Neutron Star atmospheres such as temperature, density profiles, emerging angle dependent intensity field and locally emitted spectra.

Serdecznie zapraszam,
Agnieszka Majczyna