Physics of Afterglow Plasmas

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Low-temperature plasmas are generally complex systems where heating, energy loss and transport are key aspects. The interaction among the particles within the various ensembles in the plasma (electrons, ions and atoms) is mostly weak but the coupling between the different ensembles can be strong. Consequently, non-equilibrium distributions of particles are typical. Afterglow plasmas are characterized by the lack of energy input by external electromagnetic fields. Transport and cooling are decoupled from heating which reduces the complexity of the system. Interesting phenomena are for example evaporative cooling of electrons, population of highly excited Rydberg states and non-local distribution functions of electrons and ions. In the talk the physics of these processes will be elucidated experimentally and theoretically.

Einführung: Prof. Dr. U. Czarnetzki
Die Fakultät lädt alle Interessierten herzlich ein.
Ab 11.45 Uhr Kaffee/Tee im Hörsaal