



EINLADUNG

zum

VERA - SEMINAR

von

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**High Energy Matters:
Radiation and Plasma in the Environment of
Young Stars**

Although stars are born in cold, dark clouds of molecular gas and dust, they are surrounded by high-energy radiation and particles almost from the beginning. Million-degree plasma pervades entire star-forming regions, and more locally, the stars themselves heat part of their immediate environment to extremely high temperatures. So far, we know of at least three responsible heating mechanisms: magnetic energy dissipation, accretion processes, and stellar outflows, although many details remain poorly understood. The resulting X-ray radiation has profound influence on the cooler stellar environment: it ionizes and heats gaseous envelopes and protoplanetary disks, thus driving chemical networks, disk instabilities, and disk evaporation, and therefore ultimately planet formation and the conditions for future habitability of planetary environments.

Donnerstag, 29. März 2012, 16:30 Uhr

**1090 Wien, Währinger Str. 17, "Kavalierstrakt",
1. Stock, Victor-Franz-Hess Hörsaal**