Innsbruck Physics Colloquium

The first steps toward chemical complexity during star and planet formation

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Stars and stellar systems in our Galaxy form within dense (~100,000 H_2 molecules per cc) and cold (~10 K) fragments of interstellar molecular clouds, called pre-stellar cores. Important chemical processes take place at this early stage, such as isotope fractionation, production of complex organic molecules and growth of thick icy mantles onto dust grains, where water and organics are stored. These processes can affect later phases of star and planet formation.

Molecules are unique tracers of the dynamical and chemical evolution of star and planet forming regions. Thus, astrochemistry is crucial to test theories and shed light on our origins. In this talk I shall review the chemical and physical structure of pre-stellar and protostellar cores, as well as recent work on protoplanetary disks in their earliest phases of evolution. Links to our Solar System will be made.

Colloquium: Tuesday, 13.06.2017
17:15 h in lecture hall C

DK-ALM Pre-Talk: 16:30 h

Hendrik Poulsen Nautrup

Fault-tolerant Interface between Quantum Memories and Processors

Snacks will be provided in between the pre-talk and the colloquium.

FWF Der Wissenschaftsfonds.

Innsbruck Physics Colloquium, Organisation: M. Beyer, R. Kissmann, H.-C. Nägerl, A. Reimer