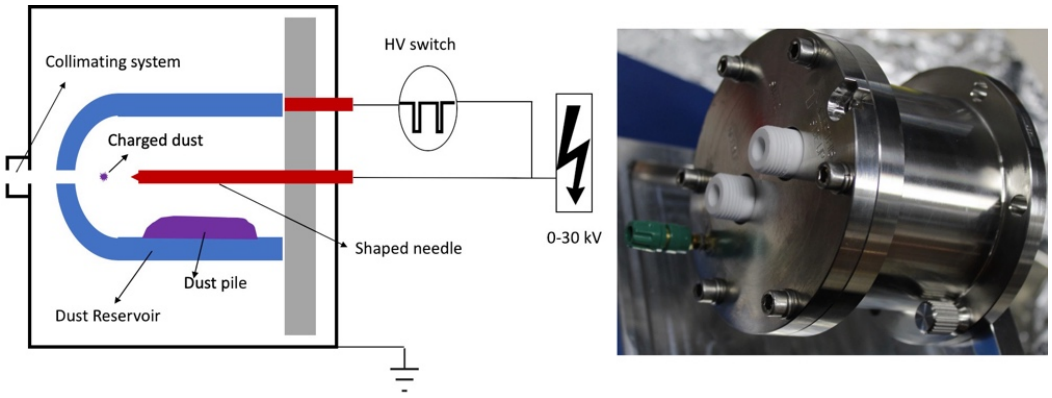
HiWi (m/w/d) position from 01.07.2024:
Development of a new dust source

Electrostatic dust accelerators operated at University of Stuttgart are powerful tools, which can fire micron-sized particle with speeds from several m/s to 100 km/s. The dust source is one of the key components in a dust accelerator facility. Dust particles obtain their surface charges and preliminary speeds from the dust source. The charging of micron-sized dust particles is a major challenge in the development of a dust source. Particles may be charges by UV irradiation, electron and ion beams, or by contact with a charged surface. The latter method, which results in adequate particle charge to mass ratio (q/m), was utilized to develop the dust source.



The ultimate goal of this study is to analyze how the geometry of the charging electrode (needle) influences the parameters of accelerated particles, including charge, speed, size of individual dust, etc.

Tasks:

(1) Mechanical design using CAD software (NX)
(2) Laboratory testing
(3) Documentation (if needed)

What you should bring:

(1) Holding a bachelor's degree in physics, electronics, material engineering, etc.
(2) Experiences in high voltage engineering
(3) Familiarity with Siemens NX software
(4) Availability to work for us more than 20 h/month

Please submit your application (CV and current proof of achievements)

by email to Dr. Ing Yanwei Li (**li@irs.uni-stuttgart.de**, Tel: 0711-685 69653)