



Семинар

**Вторник, 11 июля,
11-00
Конференц-зал ЛЯП**

**Thorwald Klapdor-Kleingrothaus
(Freiburg and CERN)**

**" Impacts on water contamination on the gain of
MicroMegas Detectors and the consequences
for the HV control for the
New Small Wheel of the ATLAS detector. "**

The Micro Mesh Gaseous Detectors (MicroMegas, MM) are planar and high-rate capable detectors with a very good spatial resolution. In the recent years, the MM technology was intensively studied in view of replacing the innermost station of the ATLAS endcap muon spectrometer in the next long LHC shutdown in 2019/20 by a new detector assembly known as the New Small Wheel (NSW) Upgrade. The two New Small Wheels will use the MicroMegas technology as well as sTGC's for triggering and track reconstruction. In this context, small MicroMegas prototypes (10x10 cm) were developed, to study their performance and their behavior. The presented work uses a cosmic muon test setup with two of these prototypes in combination with a scalable readout system. Influences on the detector performance caused by variations in pressure of the operation gas or by contamination with humidity at the low ppm level are investigated. These parameters will impact the later design of detector slow control system at the New Small Wheel in ATLAS, which will be part of this talk, too. In addition, the further upgrade activities for the NSW in Freiburg are presented.