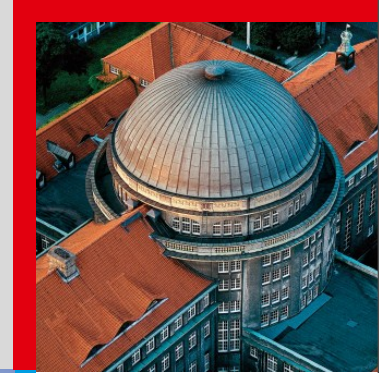


Non-Sensitive Materials in High Energy Physics



DESY, 13-14 September 2012

- > PIER is fostering the interdisciplinary and inter-institutional cooperation by pooling the institutions' strengths in research and teaching
- > Cooperation between Hamburg University and DESY has a long successful history
- > PIER gives the successful cooperation a name and a visibility
- > This makes these cooperation attractive for third-party funds

- > 4 PIER research fields:
 - Infection and Structural Biology
 - Nanoscience
 - Particle and Astroparticle Physics
 - Photon Science

- > PIER Ideenfonds → funding for the workshop

Aim of the Workshop

- > focus on materials
 - explore new options for materials that might be useful to us

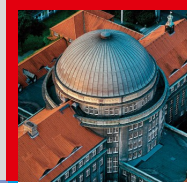
- > HEP session to outline the requirements of our community
 - NOT experiment specific but rather by topics:
 - global support structure
 - detector module support
 - thermal management on detector modules
 - thermal interfaces and piping
 - adhesives

- > „industry“ session
 - lectures/talks from material science
 - presentations by company representatives on available material options

- > discussion session
 - split up into groups based on topics and interest
 - ample time to go into details

- > get a clear idea of what materials should be investigated further





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Future experiments at the Terascale demand "zero-material" tracking detectors with excellent space and energy resolution. Conversely, the increased complexity and granularity of inner tracking detectors impose strong requirements on powerful cooling and excellent structural rigidity.

This challenging task can only be accomplished with tight collaboration between research institutes, academia and industry.

This workshop brings all the relevant partners together to:

- outline the requirements on passive materials for HEP detectors,
- review the existing state of the art materials with emphasis on the thermal and mechanical properties,
- discuss limitations and options, and
- sketch the dreams that will support HEP detectors in 10 years time.

Local Organizers:

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<http://nonsens2012.desy.de>



Eine Partnerschaft der
Universität Hamburg und DESY

<http://nonsens2012.desy.de>

Looking forward to seeing
many of you in September...

