

2nd MC-PAD Network Training Event



Thursday, 28 January 2010 - Saturday, 30 January 2010

Hamburg (DE) - Coordinator: Robert Klanner

Scientific Programme

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<html>
<body>
<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif">In January and March 2010, two
combined MC-PAD / Alliance training events on Geant4 and ROOT data analysis will
take place at DESY (Hamburg). <o:p></o:p></span>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif">The first event, which is targeting
the Researchers of the MC-PAD network and its invited guests, will take place
from January 28-30. This is the INDICO page for this event! For more information
see http://www.terascale.de/schools\_and\_workshops/geant2010/ or contact the
organisers (anacen@desy.de). <o:p></o:p></span>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif">The events will combine introductory
lectures and hands-on experience on the following topics:</span><span style="font-size:10.0pt;
line-height:115%;font-family:"Verdana", "sans-serif";mso-bidi-font-family:Verdana">
<o:p></o:p></span>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif";mso-bidi-font-family:Verdana">1.
Simple fitting</span><span
style="font-size:10.0pt;line-height:115%;font-family:"Verdana", "sans-serif">
techniques using ROOT.</span><span style="font-size:10.0pt;line-height:115%;
font-family:"Verdana", "sans-serif";mso-bidi-font-family:Verdana"> <o:p></o:p>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif";mso-bidi-font-family:Verdana">2.
Monte Carlo methods and simple applications.</span><span
style="font-size:10.0pt;line-height:115%;
font-family:"Cambria Math", "serif";mso-bidi-font-family:"Cambria Math"><o:p></o:p></span>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif";mso-bidi-font-family:Verdana">3. The</span><span
style="font-size:10.0pt;line-height:115%;font-family:"Verdana", "sans-serif">
physics of a beam telescope made of Si-strip detectors</span><span
style="font-size:10.0pt;line-height:115%;font-family:"Cambria Math", "serif";
mso-bidi-font-family:"Cambria Math"><o:p></o:p></span>
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<span style="font-size:10.0pt;line-height:115%;font-family:
"Verdana", "sans-serif";mso-bidi-font-family:Verdana">4.
Introduction to</span><span
style="font-size:10.0pt;line-height:115%;font-family:"Verdana", "sans-serif">
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GEANT4 and simulation of a beam telescope made of high resolution silicon strip detectors – simulate data for further analysis.

Analysis of the beam telescope data: clustering and position reconstruction, simple track fit, determination of position resolution and detection efficiency, effects of multiple scattering, track extrapolation errors and basic detector alignment.

6. Determination of the position resolution of a Si-strip detector as function of angle of incidence.