Table of Contents

The Silicon Tungsten ECAL ............................................................................................................................ 1
The Silicon Tungsten ECAL

The images above show a few of the several million events recorded by the Si-W physics prototype in test beam at the Fermilab MTEST beamline in 2008. The size of each square readout cell is 1x1cm², and its color reflects its energy, from the most energetic (red) to the least (purple). The beam enters from the bottom left corner of these images. The high granularity of the detector allows detailed identification of particle showers.

General Introduction to Si-W ECAL

Requirements and Design

Present and past activities

BeamTest activities

Papers

Technical reports and proceedings

the Si-W Team

links

Some pictures of the detector design, construction and testing:

<table>
<thead>
<tr>
<th>physics prototype design</th>
<th>mechanical structure of physics prototype</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Image" /></td>
<td><img src="image2.png" alt="Image" /></td>
</tr>
<tr>
<td><img src="image3.png" alt="Image" /></td>
<td><img src="image4.png" alt="Image" /></td>
</tr>
</tbody>
</table>
gluing of Si sensor | detector slab
---|---
physics prototype during installation | complete prototype in beamline
mechanical demonstrator module | cooling system tests

Hamamatsu Si sensor (18x18 cm², 5x5mm² pixels) | prototype front end board with ASICs

more pictures and diagrams