



# EASy

White Note



# Educational Alibava System

# 01 EASy Educational Alibava System

## What is EASy?

**EASy** introduces high-energy physics and particle detectors to physics students with hands-on experiences. It familiarizes the students with concepts such as:

- MIP
- Charge Collection
- Full Depletion
- Charge sharing in strip detectors



**EASy** is a plug-and-play educational system based on Alibava System. All components needed to start measuring are assembled and prepared, including the microstrip sensor. Allows a quick and simple setup, ideal for student laboratory experiments. Furthermore, a practical exercise book is included.

A portable, compact and complete system for microstrip sensor characterization that uses the front-end readout Beetle chip developed for CERN/LHC experiments.

# Teachers experience using EASy

**Tony Weidberg**, Professor of Particle Physics, and **Jeffrey Lidgard**, Teaching Laboratories Senior Technician, have answered the following questions about their experience using the **Educational Alibava System**:

**1. What is the education level of the students who have used EASy?**

We have been using it in our undergraduate labs within the physics department.

**2. How does the device help you teach physics of detectors?**

This detector is discussed in lectures. It helps teach detector physics because it brings the theoretical idea to life. It is great the students are able to experiment with this type of detector.

**3. How does education differ from before to now using this device?**

We have a range of different detectors in our teaching laboratories. Having a detector with this technology adds to the skills and experiences the students learn from the course.



**Tony Weidberg** *Professor of Particle Physics*

**4. What level of difficulty do students present when using the device?**

I've only used the detector in the laser calibration mode, but I was impressed with the balance between being easy to use but still being 'hands on' and doing something with the detector, rather than just changing software options (which is all some other detectors offer).

**5. Would you describe the EASy as efficient? Do you prefer the laser or do you also use it with a radiation source?**

We find the laser and radiation sources complement each other. We wrote an exercise which first calibrates the system with the laser. Calibration is an important experimental concept, and demonstrates how the detector works. The students then measure radiation with a detector they understand.

**6. Would you be interested in a specific EASy course? On which topic?**

It would be interesting to learn how to write out raw data for subsequent offline analysis.

**7. Would you be willing to register your students in an online course?**

If there were on-line resources available, we would definitely have a look and see how we could apply them.

**Would you like to be  
the next using EASy?**

For more information about the **EASy Educational Alibava System** please contact us:



**Technical information available at**

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