

NWS05-2005-000031

Abstract for an Invited Paper
for the NWS05 Meeting of
the American Physical Society

The WALTA cosmic ray project

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The Washington Large Area Time coincidence Array (WALTA) is a network of cosmic ray air shower detectors located at Seattle-area secondary schools. The scientific goal is to detect the highest energy air showers, produced by single cosmic ray particles with tens of joules of energy. The school groups are active participants in this project; they are responsible for preparing the equipment and the location at their school, checking the incoming data for quality, and uploading it to a central analysis server. We are also developing a variety of smaller experiments they can do with this equipment in their classroom to learn about particle physics. Several teachers and students have independently developed related projects involving the equipment or the data. I will describe the recent successes and challenges of this project, both educational and experimental aspects.