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SPS Outreach with Amusement Park Physics KATHLEEN GEISE, STEVEN IONA, ROBERT STENCEL, University of Denver, Department of Physics and Astronomy — The Department of Physics and Astronomy helps host an annual outreach event at a local amusement park for students in grades 6-12. The Physics Night Program is made up of several parts primarily focused on having students apply physics principles and estimate measurements at the park. That evening, DU sponsors undergraduate student volunteers in queue lines to discuss physics concepts with students, and the Society of Physics Student (SPS) chapter stages a more elaborate collection of physics demonstrations at a central gathering place. In 2006, we expanded our outreach efforts to include interactive data collection and on-site interpretation of data. A team of graduate and undergraduate DU SPS students outfitted high school volunteers with vests and hardware designed to return three-axis acceleration information. Students were the sensors on the rides, returned the equipment to the staging area, and received immediate feedback about the accelerations their hardware recorded. We hope to expand the range of experiential sensing to include more physiological as well as physical data collection, and to provide greater accuracy utilizing the technology we are implementing at the park.

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