

## **AH01 10:30 a.m. Dynamics of Student Learning of Thermodynamics Problems**

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We have been investigating student learning of thermodynamics concepts in introductory physics and chemistry courses. By analyzing data from both interviews and written diagnostic materials, we are trying to piece together the evolution of students' understanding of these concepts as they are exposed to them first (typically) in chemistry courses, and then in physics courses. Preliminary findings based on data from more than 1,000 students will be presented. Among the specific issues that appear to play a critical role are the understanding of "change" and the nature of heat, and the ability to distinguish between state functions and process-dependent qualities.