Abstract Submitted
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Student Understanding of Basic Probability Concepts in an Upper-Division Thermal Physics Course[1] MICHAEL LOVERUDE, California State University Fullerton — As part of ongoing research on student understanding in upper-division thermal physics, we developed a number of simple diagnostic questions designed to probe understanding of basic probability concepts. Preliminary results showed that many students had difficulty in distinguishing the concepts of microstate and macrostate, and in applying mathematical relationships for multiplicity of simple systems. We have tested a tutorial sequence designed to address some of the difficulties. We will summarize previous results, show post-test results from the target courses, and describe aspects of the tutorial sequence that are likely in need of modification.

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