

Statistical Mechanics Qualifying PhD Exam Guidelines

Department of Physics, Southern Methodist University

Established in August 2014

Guidelines

The qualifying exam in statistical mechanics will be at the advanced undergraduate level. Specifically, it will correspond to the material in Reif, chapters 1 - 7, with an emphasis on material from Ch. 5 through 7, including the Boltzmann distribution.

Students may bring a statistical mechanics textbook (not a problem book) of their choice and a calculator. There will be (roughly) a choice of three out of four problems.

Preparation might include reviewing problems from the undergraduate and graduate courses, from previous qualifying exams, and from statistical mechanics problem books in the library. If requested, we can also make problems and solutions from our undergrad 3374 Thermodynamics and Statistical Mechanics course available.