

Lecture 10—Ideas of Statistical Mechanics

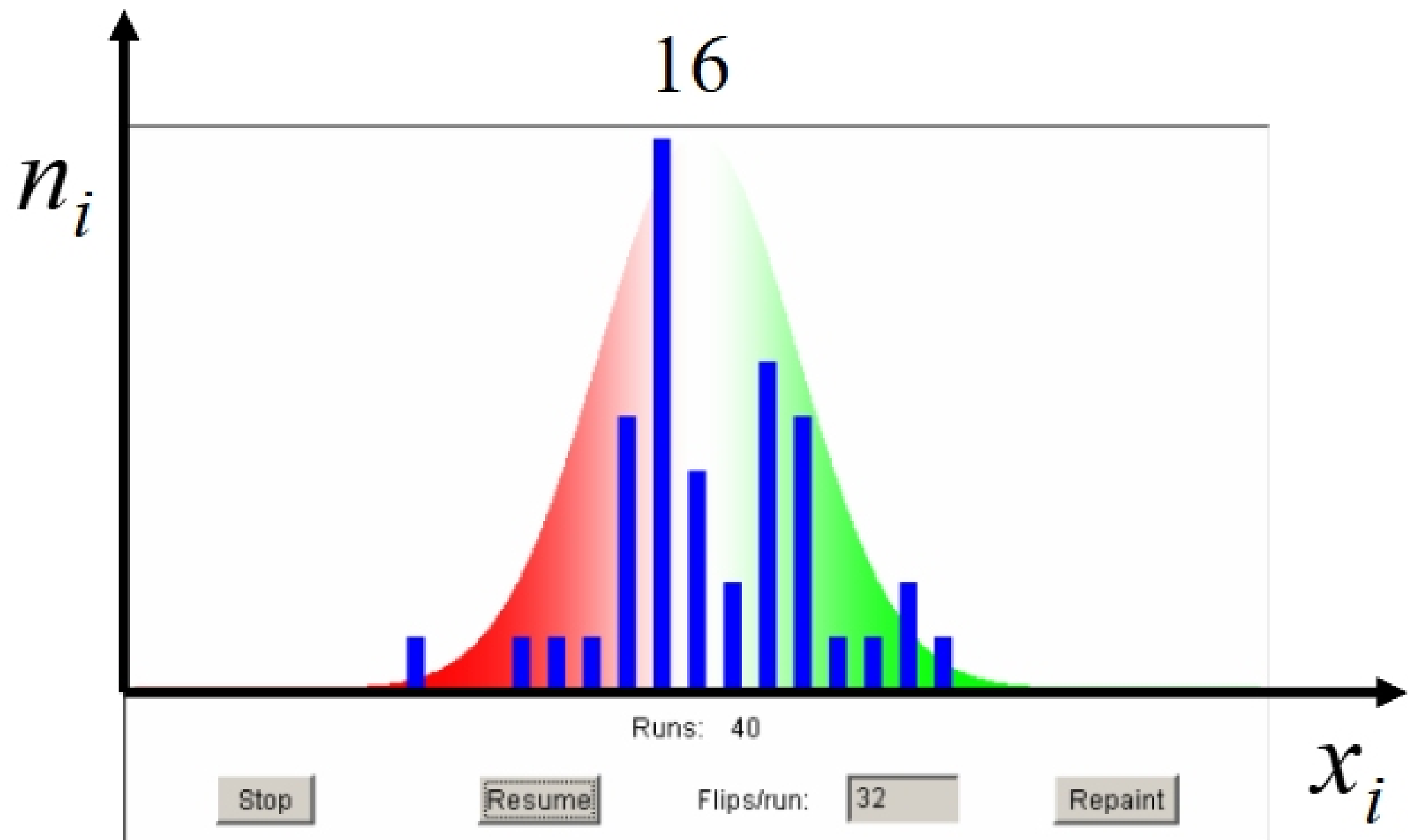
Chapter 4, Wednesday January 30th

- Finish Ch. 3 - Statistical distributions
- Statistical mechanics - ideas and definitions
 - Quantum states, classical probability, ensembles, macrostates...
- Entropy
- Definition of a quantum state

Reading: All of chapter 4 (pages 67 - 88)
*****Homework 3 due Fri. Feb. 1st*****
Assigned problems, Ch. 3: 8, 10, 16, 18, 20
Homework 4 due next Thu. Feb. 7th
Assigned problems, Ch. 4: 2, 8, 10, 12, 14

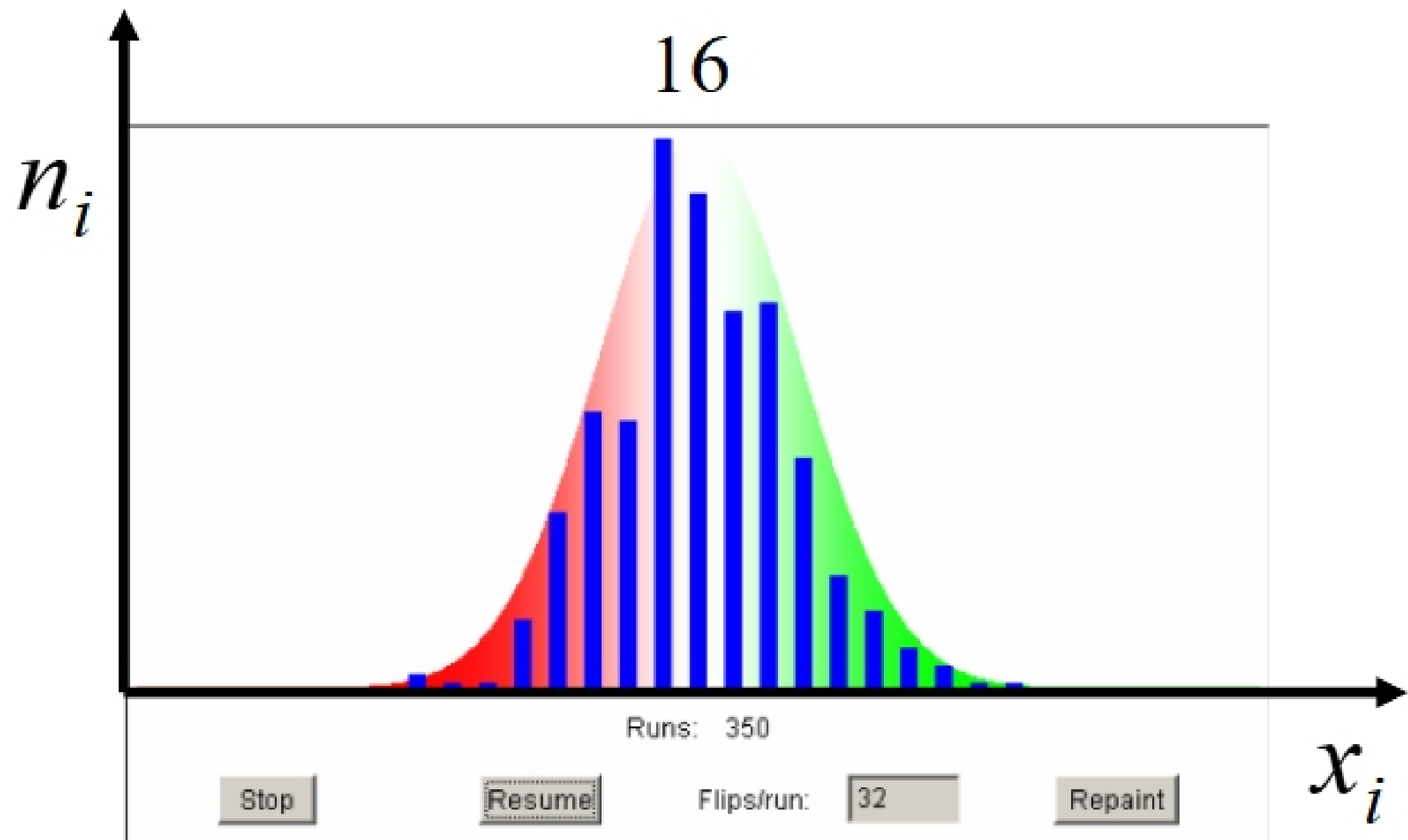
Exam 1: Fri. Feb. 8th (in class), chapters 1-4

Statistical distributions



Mean: $\bar{x} = \frac{\sum_i n_i x_i}{N}$, where $N = \sum_i n_i$

Statistical distributions



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