

# Grading Rubric for 18.821 Papers (20 points total)

October 12, 2016

## **Mathematical Correctness and Vision (10)**

- 9–10 The students discovered something remarkable and provided exceptionally elegant explanations of the phenomena they identified.
- 7–8 The students discovered something substantial and explained convincingly the phenomena they found (i.e., proofs are rigorous; conjectures are supported with convincing evidence).
- 5–7 The students made substantial progress and offered explanations for the phenomena they identified (i.e., claims are rigorously stated and support goes beyond a few specific examples).
- 3–5 The students gave a good expository description of the problem and of the most interesting aspects of the phenomena they found (e.g., conjectures are stated).
- 1–3 The students described the problem and found some immediately apparent aspects of it.

## **Exposition (6)**

- 6 The paper is exceptionally interesting and engaging.
- 5 The paper is easy to read and understand and is well suited to the target audience (peers of the authors). The paper is consistent and cohesive (not just 3 parts pasted together); the paper is focused and structured and the structure is communicated to readers; new ideas are introduced efficiently and with proper motivation; displays and examples are well chosen to aid understanding; mathematical language and notation are used appropriately; citations clearly acknowledge any sources used; writing is accurate, appropriately concise, and carefully proofread.
- 4 Many of the criteria for a grade of 5 are met. The paper is sufficiently clear that peers can easily discern what was intended whenever expository roughness is encountered.
- 3–4 Peers must expend some effort to discern what was intended when expository roughness is encountered.
- 1–3 Substantial effort is needed to discern what was intended.

**Research and Writing Process (4)** All teammates contributed substantively to the research and to the writing and attended all meetings. The draft was complete and carefully written. The revision took into account but was not limited to the feedback of course staff and of teammates.