Distributed Graph Algorithms - Final Project

The final project will be done in groups of two students. It consists of the following ingredients:

1. **Choosing a paper in the area of distributed graph algorithms.** The paper can be chosen either from the list of suggestions that will be published at the start of the semester, or from any conference or journal in the related area. The choice is subject to my approval. Approval will be given for a different paper for each group.

2. **Reading the paper.** Notice that some papers have additional versions online, which you can find using your favorite browser. Sometimes these versions have additional details which may be helpful in understanding the work.

3. **Getting familiar with the context of the related work.** This includes reading the description of related work that is covered in the paper and also searching for results that came after the paper. This can be found using, e.g., Google Scholar or similar databases.

4. **Studying a new question that is related to the paper.** This is the creative part of the project. You are expected to say something interesting that relates to the paper that is not known. Examples for directions to look into are: What can be said if we remove an assumption about the model? What can be said if we add an assumption about the model? What can be said if we restrict the family of graphs that are addressed? What can be said if we slightly relax the requirements of the problem? What can be said if we slightly strengthen the requirements of the problem?

   You are not expected to strictly improve upon the results of the paper, although this would be great and may even result in a publication. What you are expected to do is ask an interesting question, and try to answer it. If you have a good question but cannot come up with an answer, then you can describe the directions you tried and the ways in which they were hard.

5. **Submitting a report about the work.** The report should describe the paper you read, the related work and state-of-the-art, and the new question you studied and its results. It should be typed in English (not hand-written), using your own words, as a scientific report. The report must be written in LaTeX, using the given template. Instructions on using LaTeX are also provided.

The due date for requesting papers is **April 18, 2019**.
The due date for submitting the report is **July 28, 2019**.
These are firm due dates which will not be extended.

On **May 29, 2019**, each group will submit a mid-report. This report is intended to make sure that you are making progress, and is mandatory. It must contain at least the first part of the final report, which is the description of the paper you were assigned.

The grade for the project will be based on the following: (i) an estimate of how well you understand the paper, (ii) the quality and magnitude of the related work description (including later results), (iii) the creativity and novelty of the new result obtained in the project, (iv) the quality of the report, and (v) my general evaluation.