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CS2951-S Homework 4
Due 26 April 2016
email pdf to `mph@cs.brown.edu`

Maurice Herlihy

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0.1 Exercise 7.6

Describe an implementation of safe agreement using two layers of wait-free immediate snapshots. Explain why your protocol is not colorless.

0.2 Exercise 11.1

In the previous exercise, we asked you to describe an implementation of safe agreement using two layers of wait-free immediate snapshots. Show that there is no one-layer implementation.

0.3 Exercise 11.2

Consider the following fixed-input colored task: $n + 1$ processes choose distinct values in the range $0, \dots, n + 1$. Prove that the output complex for this task is a manifold. (This task is a special case of the renaming task considered in the next chapter.)

0.4 Exercise 11.3

As a special case of the previous Exercise, draw the output complex for the fixed-input colored task where three processes choose distinct values in the range $0, 1, 2, 3$. What is this surface called?