

## COMP 6839 Problems

20. Prove properties A1, A2, A4, A5, A7 on p. 88.
21. Show that parabolicity of eq 3.42 is indeed equivalent to the condition  $b(s) > 0$ .
22. Download the image data posted on the course web page. Run the heat equation on this initial image in absence and in presence of noise, and show the result at different final times.