Checkpoint 2: Cellular automata: Marksheet

Name: **Matriculation number:**

1. The game of life (4 marks):

The game of life algorithm has been coded up correctly (1 mark)

Suitable initial conditions (including a random one) lead to absorbing states/sinks, oscillators or moving patterns as appropriate (2 marks)

The speed of a glider state, or of another moving state, is computed correctly via a fitting of centre-of-mass data (1 mark)

Comments:

2. The SIRS model (10 marks):

The update rule for the SIRS model is coded up correctly (1 mark)

Suitable parameters lead to absorbing state, dynamical equilibrium and waves of infection spreading. (3 marks)

The phase diagram for absorbing and active phases is computed correctly, and shown with a suitable graph. (2 marks)

The region where waves arise has been identified correctly, with a suitable contour plot/colour plot. (2 marks)

Minimal number of immune agents is computed correctly for given parameter sets, and the results are shown with appropriate accompanying graphs. (2 marks)

Comments:

3. Quality of visualisation and graphics (1 mark)

Comments: