Monday July 8

- 1) CN 1: Connectivity and Component Size in G_{n,p} And Random Regular Graphs.
- 2) RW 1: Exact sampling from the stationary distribution: Cesaro mixing and stationary times; separation distance and strong stationary times
- 3) CN 2: Modularity in $G_{n,p}$

Exercises: CN 1 (Bruce)

Tuesday July 9

- 4) RW 2: Mixing times and hitting times; Cover times and the spanning tree bound
- 5) CN 3: The Preferential Attachment Model
- 6) RW 3: Spectral techniques; relaxation times; bottleneck ratios

Exercises RW 1-3. (Louigi)

Wednesday July 10

- 7) RW 4: Spanning Trees 1: : the Aldous-Broder algorithm and cover times
- 8) CN 4: Giant Component in Graphs with a fixed degree sequence I
- 9) RW 5: Spanning trees 2: Wilson's algorithm and hitting times; connection with the algorithmic Lovasz Local Lemma

No exercises (Excursion)

Thursday July 11

- 10) CN 5: Cliques, Stable Sets, and Colourings in Random Graphs.
- 11) RW 6: Hitting times of large sets 1
- 12) CN 6: Components in Graphs with Fixed Degree Sequences II

Exercises on RW 6-7 (Perla)

Friday July 12

13) RW: 7: Hitting times of large sets II14) CN 7: The differential equation model15) RW 8: Starr's maximal inequality

Exercises on CN7 (Dieter)

Monday July 15

- 16) CN8: Triangle-free process I
- 17) RW 9: Hitting time cutoff
- 18) CN 9: Triangle-free process II

Exercises on CN 8-9 (Simon)

Tuesday July 16

- 19) CN 10: Graphs without Induced Subgraphs I
- 20) RW 10: Characterization of cutoff for reversible chains
- 21) CN 11: Graphs without Induced Subgraphs II

Exercises on CN 10-11 (Bruce)

Wednesday July 16

- 22) RW 11: Cutoff on trees
- 23) CN 12: Random Graphs without Induced Minors I
- 24) RW 12: Surprise probabilities

Exercises on CN 12 (Colin)

Thursday July 17

- 25) RW 13: Mixing time of random walk on random random graphs
- 26) CN 13: Random Graphs without Induced Minors II
- 27) RW 14: Nonbacktracking random walk

Exercises on RW 11-14 (Anna)

Friday July 18

- 28) RW 15: Cutoff for nonbacktracking random walk on random graphs
- 29) CN 14: The Mixing time of the random walk on $G_{n,p}$
- 30) CN 15: The Chromatic threshold of graphs

No exercises (last day)