

Oxford University: Department of Statistics

FORM OF APPLICATION TO THE PROJECTS COMMITTEE

Application for approval of topic of a dissertation in the fourth year of the FHS Mathematics and Statistics, for the Academic Year 2007/2008.

*READ THE RELEVANT EXAMINATION DECREES AND REGULATIONS FIRST
Please use black ink*

Final Honour School here: **Mathematics and Statistics**

Your Name (block capitals).....

Your Email address.....

Your College (block capitals)

Please rank all projects from the attached list for which you have the course prerequisites, and otherwise state any prerequisites you lack. (1=highest).

Available projects

- Diffusion processes and stochastic differential equations - Prof R Griffiths
- The Lambda coalescent - Prof R Griffiths
- Random independent sets - Dr J Martin
- Queues, reversibility, random growth - Dr J Martin
- Copulas - Dr M Winkel
- Branching processes and random trees - Dr M Winkel
- The Alpha Model - Dr M Winkel
- Ordering from partial ranking - Dr P Clifford
- Muller's ratchet in multigene families with gene conversion - Prof A Etheridge/ Dr J Taylor
- Fixation probabilities of beneficial mutations in organisms with sweepstakes recruitment - Prof A Etheridge/ Dr J Taylor
- OpenMP and MCMC: Parallelizing the simulation of a single Metropolis Hastings
- Markov chain - Dr G Nicholls
- The ABC's of migration - Dr G Nicholls
- Coalescent modelling - Prof G McVean
- Statistical genetics - Prof G McVean
- Evolutionary genetics of pathogen genomes - Prof G McVean

- Somatic cell genealogies and differentiation - Prof J Hein

- Virus simulator - Prof J Hein

- Random forests on weighted vertices - Prof C McDiarmid

- Model choice for covariance selection models - Prof S Lauritzen

- Monte-Carlo testing in long-linear models for contingency tables - Prof S Lauritzen

Signature of College Tutor:.....
(can be filed subsequently, if necessary)

Signature of the candidate: :.....

RETURN the form to: The Academic Administrator, Department of Statistics, to arrive no later than Friday week 9 Trinity Term 2007