PhD at the University of Kent

Dr Clare Dunning
Director of Graduate Studies

Mathematics, Statistics & Actuarial Science
University of Kent

- Granted Royal Charter in 1965
- Has grown from 500 to 19,000 students
- 16,463 undergraduates
- 2,536 postgraduates

- Canterbury, Medway (Tonbridge, Paris, Brussels)
University of Kent

Three faculties

• **Humanities** Architecture; Arts; English; European Culture and Languages; History

• **Sciences** Biosciences; Computing; Engineering and Digital Arts; Mathematics, Statistics and Actuarial Science; Pharmacy; Physical Sciences

• **Social Sciences** Anthropology and Conservation; Business; Economics; Journalism; Law; Politics and International Relations; Psychology; Social Policy, Sociology and Social Research; Sports Studies
Academic Staff

- 15 Actuaries
- 17 Mathematicians
- 17 Statisticians
- 5 Postdocs

- 150 taught and research postgraduates

- Significant growth in staff & student numbers
My Research

Mathematical physics

- Quantum Integrable systems
- Statistical Mechanics
- Integrable quantum field theory
- Spectral theory
SMSAS Postgraduate Study

Taught

- MSc Applied Actuarial Science
- MSc Finance, Investment and Risk
- MSc Mathematics and its Applications
- MSc Statistics

Research

- MSc, MPhil and PhD in all subjects
Research in Mathematics

- nonlinear partial differential and difference equations
- geometric integration and discrete variational methods
- mathematical physics inc. nuclear physics
- classical and quantum integrable models
- spectral theory
- computational algebra
- applied and functional analysis
- Non-commutative algebra and geometry
- quantum groups
- representation and invariant theory
- discrete mathematics
Research in Statistics

- Bayesian statistics
- Bioinformatics
- Epidemic modelling
- Medical statistics
- Nonparametric statistics
- Risk and queuing theory

Hosts National Centre for Statistical Ecology (joint with Cambridge, St Andrews)
Research in Actuarial Science

- Economic capital and risk management
- Genetics and insurance economics
- Pensions
- Corporate reporting
- Finance
## Research Excellence: RAE 2008

<table>
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<tr>
<th>LTCC university</th>
<th>Number of staff submitted</th>
<th>RAE 2008</th>
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<tr>
<td><strong>Applied Mathematics</strong></td>
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<td>Kent</td>
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Research Excellence

Grants

- Approx. 2.1 million GPB in last 6 years

From

- EPSRC, NERC, BBSRC, European Union, IoP, LMS, IoA, British Council, Pfizer, RS, STFC, Leverhulme, Wildfowl and Wetland trust, Nuffield, Department of Health…
Why Kent?

- World-leading research
- Research-led teaching
- Strong academic community
- Personal supervision and friendly environment

- Graduate School
- Wolf Postgraduate college
- Beautiful campus close to coast, countryside, London and Europe
Kent is moving to a 4 year PhD (Bologna)

- Year 1  Acquire broad and deep subject knowledge, attack small research problems, formulate and start research project

Research and skills training

- LTCC / APTS (MAGIC/SMSTC), MSc modules, School seminars, discussion groups, external schools (LMS/EPSRC/Europe), Graduate School
Your PhD

- Years 2/3 Carry out bulk of research, attend conferences and present your work

- Year 3.5 Finish research, write thesis, publish and present

Experienced, highly skilled and employable

- Communication, Career Management, Personal development, Teaching, Teamwork, Networking
Employment after a PhD

400-450 UK doctorates awarded annually

HESA data 2004-2008 (January post graduation)

- Education 42%
- Finance, Business and IT 34%
- Other 18%
- Unemployed 6%

Overall 30% of graduates doing research (20% in HE)
Are you up for it?

A PhD requires

- MSc, MMath, MPhys or BSc 1\textsuperscript{st}
- Exceptional commitment
- Understanding of wide range of mathematics
- Independence, initiative and creativity
- Original work
Kent Scholarships

- Stipend of £13,590 p.a. for 3.5 years
- UK/European students: fees paid in full
- Overseas students: £3,800 p.a. towards fees

- University: 30 competitive scholarships
- SMSAS: approx 6 scholarships

Deadline for application is 25 April 2011
Thank you