Long residency programmes at INI

How to write a successful proposal
\[ a + (b + c) = (a + b) + c \]
The Isaac Newton Institute

A national and international visitor research institute

- Part of the UK’s mathematics research infrastructure (with ICMS, Heilbronn)
- Themed programmes of 1, 4 or 6 months duration
- Programmes span the mathematical sciences broadly interpreted
- Includes Newton Gateway to Mathematics
- Located in Cambridge and part of CMS
This session

Ulrike Tillmann, Director of INI
- Long-term programmes
  - Benefits & barriers
  - Developing an idea & writing a proposal

Clare Merritt, Manager of the Newton Gateway
- Support offered by the Newton Gateway

Samantha Skehel, Business and Operations Manager of INI
- Support offered by INI

Q&A
The benefits of long-term programmes

Unique opportunity to build a community, indeed, grow a new subject area

Allow organisers and participants to

• spent entire sabbaticals completely immersed
• learn new approaches and subjects
• organise project seminar series
• foster and nurture the next generation
Bespoke building

• Opened in July 1992
• Designed to nurture collaborative research
• Two seminar rooms of capacity 100 and 60
• Office space for 57 long term participants
Barriers to participation

INI has developed schemes for removing barriers to participation:

- **Provision of Care Scheme** for caring responsibilities or needs
- **DAC-Listed Countries Scheme**

**Assistance with sourcing:**

- schooling and sourcing/funding early years childcare;
- housing to accommodate family or carers
2023 Programmes

6-month programmes
- Mathematical theory and applications of **multiple wave scattering**
- **Rich and Nonlinear Tomography** – a multidisciplinary approach
- The mathematical and statistical foundations of future **data-driven engineering**
- New **statistical physics in living matter**: non equilibrium states under adaptive control
- **Mathematics of movement**: an interdisciplinary approach to mutual challenges in animal ecology and cell biology
- **Uncertainty qualification** and stochastic modelling of materials

4-week programme
- GeomPack: **Geometry and packing** in material structure and biology
Developing an idea

• What are the exciting new developments?
• What is the goal of your programme?
• Have there been recent programmes in this area?

The Director and Deputy Director will be happy to discuss these points at any stage of the development of your plans.
Writing a proposal

• Mathematical/scientific case:
  - background,
  - state of the art,
  - ambitions and future directions
• Main goals of programme
• Names of 60 potential participants
• EDI plan

• [https://www.newton.ac.uk/events/submit-a-proposal/](https://www.newton.ac.uk/events/submit-a-proposal/)
Programme structure

Should suit the science!

Standard: 3-4 workshops

Variations: replace a workshop with
• a research school;
• a satellite workshop;
• an international split site school or workshop;
• deep dive sessions;
• open for business events (through Newton Gateway)
Timeline

X-24m proposal submitted
X-20m proposal reviewed by referees
X-19m programme considered by Scientific Steering Committee
X-18m programme approved by Management Committee
X programme starts at INI
X+6m programme finishes
X+8m final report due

- Two years from proposal submission to programme start.
- Add 6 months in case a revision is needed.
Selection criteria

Scientific case:
- timely, novel, ambitious
- lasting impact on the field
- interdisciplinary or intra-disciplinary interactions

- Experience and commitment of organiser team
- Right mix of participants
- Commitment to diversity
Submission deadlines

31 January

31 July
The Newton Gateway to Mathematics

• The impact initiative of INI
• Engage with the users of mathematics
• Help to bridge the gap between those engaged in frontier mathematical research and those working in more applied areas
• Develop and deliver activities for mathematical sciences Knowledge Exchange
• KE support/impact for Isaac Newton Institute Research Programmes
Open for Business Events

• **Developed and delivered** by the Newton Gateway to Mathematics

• **We work with INI Programme organisers** to identify applications and choose speakers from academia, industry & or government

• **These can be associated with an INI workshop** or run separately as a standalone event within the Programme
The administrative burden is shouldered by the INI’s team.

Organisers (for both programmes & workshops) advise and make decisions, which the INI team put into action.
Funding

- **Funding** is allocated from INI’s grant to support the programme and workshops.
- **Programme and workshop organisers** can supplement this with other funding sources, which can help to enhance the programme and workshops.
- **INI’s Admin** team manage all aspects of the budgets and finances, liaising with Programme and Workshop organisers where appropriate.
Any Questions?