University of Glasgow | School of Mathematics & Statistics

First GLE^{2}N workshop

Translating Extreme Value Theory into Real-World Impact

XX October/December 2025 University of Glasgow, UK

School of Mathematics & Statistics

Mathematics & Statistics Building, 32 University Place, Glasgow, G12 8QQ

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1 About the workshop

workshop theme needs to be defined

This one-day workshop

Goals

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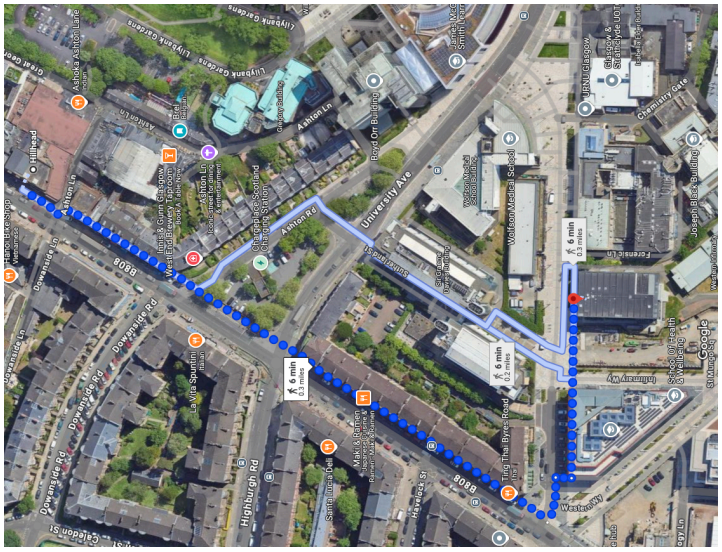
We hope that this collective effort will pave the way for ...

2 Location (TBC)

We will meet in Seminar Room 311B, located on the third floor of the Mathematics and Statistics Building (Google map). The room is accessible by both stairs and lift. The building is just a 6-minute walk from Hillhead subway station.



3 Programme overview

9:15-9:30 — Registration

9:30-9:45 — Welcome & GLE²N presentation

9:45-10:15 — Optional 2-minute lightning intros (up to 15 attendees) do we want to offer this to all?

10:15-10:45 — Coffee break

10:45-11:45 — **Invited Talks Session 1** (2 × 25-minute talks + 5 min Q&A each)

11:45-13:15 — Lunch (not provided)

13:15-14:15 — **Invited Talks Session 2** (2 × 25-minute talks + 5 min Q&A each)

14:15-15:15 — **Contributed Talks** (4 × 12-minute talks + 3 min Q&A each)

15:15-15:45 — Coffee break

15:45-16:15 — Discussion activity: theme review in teams

16:15-16:45 — Team reports & group discussion

16:45-17:00 — Wrap-up & closing remarks

17:00 onwards — drinks & dinner

4 Abstracts

The grouping and sequence of talks aim to gradually build context—from general frameworks and national challenges to specific methods and applications—while maintaining variety and thematic coherence.

4.1 Discussion Themes

Throughout the day, attendees are encouraged to contribute ideas, questions, and provocations on the below themes using Post-it pads and themed sheets placed around the room. These contributions will be used in the afternoon discussion session.

4.1.1 1. Cross-Disciplinary Collaboration

How can EVT more effectively contribute to interdisciplinary challenges (e.g., climate, finance, health)?

Prompt questions:

- What barriers exist when applying EVT in other scientific domains, and how can we lower them?
- Are there successful case studies of EVT in interdisciplinary settings we can learn from?
- How do we establish sustained collaborations with practitioners in fields like climate science, finance, or public health?

4.1.2 2. Scalability & Computation

What are the bottlenecks in applying EVT at scale, and how can we overcome them (e.g., INLA, neural approaches)?

Prompt questions:

- Which EVT models or inference techniques are most computationally efficient at scale?
- What are the trade-offs between computational speed, model complexity, and interpretability?
- How can we leverage modern computing tools (e.g., GPU, parallelisation, variational inference) to scale EVT methods?

4.1.3 3. Bridging Theory and Practice

How do we translate advanced EVT theory into tools usable by practitioners and stakeholders?

Prompt questions:

- What makes a theoretical advance in EVT practically useful?
- How can we communicate EVT model assumptions and uncertainties to non-specialists?
- What types of user-friendly tools or software are most needed by practitioners?

4.2 Discussion Activity Details

4.2.1 Task 1: Theme Review (20 min)

- Each group collects their theme sheet.
- Review Post-it notes and prompt questions.
- Summarise key ideas and explore potential answers or alternative approaches.

4.2.2 Task 2: Team Reports (15 min per team)

- Each team leader presents their group's summary.
- A short follow-up discussion with the full group.