



UNRISK CDT (2025)

NERC Centre for Doctoral Training - Understanding Uncertainty to Reduce Climate Risks (UNRISK)

Application process

There is a 2-stage application process.

- **Stage 1:** All applicants to UNRISK, regardless of which university or department they are interested in (Leeds, UCL or Exeter), must submit the **University of Leeds [online application form](#)** (OLA) to obtain a 9-digit student ID number. As part of this stage you will also upload or send by email your proof of qualifications or provisional transcripts if you are currently studying, and any English language test results (if taken).
- **Stage 2:** Complete and submit the UNRISK application by working your way through the questions on this form.

To avoid losing your data, we recommend that you prepare your answers to the structured personal statement offline and enter them in this form in one go. You can also click **Finish later** at any point to save and come back to complete the form later. Please note: you must 'submit' the form on completion for it to be considered.

Applications received after the deadline will not be considered.

If you have any questions related to this form, please contact env-pgr@leeds.ac.uk. No advice can be provided regarding content of your responses.

Personal information supplied on your application is held in accordance with the [Student Privacy Notice](#), which explains how the University of Leeds will collect and use your personal data.

University of Leeds Application

The University of Leeds is managing all applications to the UNRISK CDT. Before proceeding with this UNRISK application form, you must first have completed stage 1 of the application process and submitted a University of Leeds online application.

1. I have completed and submitted the [University of Leeds online application](#) form and have my 9 digit student ID number *

Yes

No

Personal Details

2. First Name *

3. Last Name *

4. E-mail address *

This will be used to keep you informed about the status of your application

5. Please add your nine digit student identification number *

Student ID Number (SID - this is generated when you submit your University of Leeds Online Application - please take extra care when entering this number as it will be used to manage your application).

Project Details - 1

Please enter the details of the first project you wish to be considered for. You may choose a second project on the next page. We do not accept applications from people wishing to submit their own proposal.

6. First project choice *

- Developing a dashboard for social and environmental risks using data mining and multi-criteria decision analysis
- Advanced Machine Learning techniques for quantifying uncertainty in climate impact on biological systems
- Quantifying the role of land cover in 'slowing the flow' for flood risk reduction in a changing climate
- Integrating weather and climate information into innovations and metrics for agricultural advisories
- Combining models and uncertainties to support flood risk assessment and mitigation strategies
- Inclusive storylines for sustainable governance of urban adaptation to uncertainties in future heat extremes
- Climate change uncertainty impacts on soil carbon storage and sequestration
- Extreme value modelling of rainfall from high resolution radar data in a changing climate
- Predicting biodiversity loss in mountain rivers due to glacier retreat
- Reducing uncertainty in glacial lake outburst flood risk and decision making
- Impact of climate change on airport safety and operations
- Leveraging probabilistic AI for heat-related health risk mitigation and adaptation
- Epistemology of weather and climate prediction: What certainty can we have in the future of our environment?
- Back to the Future: Ice sheet collapse, ocean circulation slowdown and abrupt climate change
- Can AI-based weather and climate models enhance humanitarian response and energy planning?
- Protecting UK infrastructure from landslides triggered by climate extremes
- Physics-informed Machine Learning for decision making related to future extreme weather events
- End-to-end Machine Learning quantification of hydrological uncertainties: from climate to flood risk management
- Uncertainty in climate change and its impact on earthquake risk
- The impact of extreme climate events on mountain glacier evolution
- Developing ethnoclimatologies of climate risk
- The impact in decision-making on health and environmental risks
- Exploring uncertainty due to clouds in modelled future climate change systematically

- Reducing uncertainty in land surface model projections
- Novel statistical AI approaches for modelling and evaluating extreme windstorm risk
- Leveraging Machine Learning algorithms for improved Arctic sea-ice prediction using the Met Office suite of models
- Modelling biodiversity responses to climate and human-induced land change
- Advanced Uncertainty Quantification for decision support: Balancing risks and preferences for policy decisions
- High resolution climate prediction for an equitable and economically sound transition to Net Zero
- The influence of physical process representations on regional and global-scale climate model output
- Using new high-resolution ensembles to quantify uncertainty in projections of African climate processes
- Millennia of sea-level rise awaits: Quantifying spatial uncertainty
- Uncertainty in the economy and in sea-level rise: Gaming robust strategies for coastal resilience
- Understanding uncertainties in the measurement and simulation of Antarctic ice sheet dynamics
- Variability and future changes in European wind storm risk
- Reducing uncertainty in the effect of clouds on climate change
- Reducing uncertainty in climate risk perception to enhance resilience: A data science approach using the World Risk Poll

7. Project based at which University *

- University College London
- University of Exeter
- University of Leeds

Please note you will need to meet any entry requirements for Postgraduate Research admissions at the chosen university and the relevant School/ Department the project is based in. This may include English Language requirements, academic requirements etc. Please contact the project supervisors if you are unsure.

8. Primary supervisor first name *

9. Primary supervisor last name *

Project Details - 2 (Optional)

Please enter the details of the second project you wish to be considered for.

We do not accept applications from people wishing to submit their own proposal.

10. Second project choice

- Developing a dashboard for social and environmental risks using data mining and multi-criteria decision analysis
- Advanced Machine Learning techniques for quantifying uncertainty in climate impact on biological systems
- Quantifying the role of land cover in 'slowing the flow' for flood risk reduction in a changing climate
- Integrating weather and climate information into innovations and metrics for agricultural advisories
- Combining models and uncertainties to support flood risk assessment and mitigation strategies
- Inclusive storylines for sustainable governance of urban adaptation to uncertainties in future heat extremes
- Climate change uncertainty impacts on soil carbon storage and sequestration
- Extreme value modelling of rainfall from high resolution radar data in a changing climate
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- Novel statistical AI approaches for modelling and evaluating extreme windstorm risk
- Leveraging Machine Learning algorithms for improved Arctic sea-ice prediction using the Met Office suite of models
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- Variability and future changes in European wind storm risk
- Reducing uncertainty in the effect of clouds on climate change
- Reducing uncertainty in climate risk perception to enhance resilience: A data science approach using the World Risk Poll

11. Project based at which University

- University College London
- University of Exeter
- University of Leeds

12. Primary supervisor first name

13. Primary supervisor last name

Please note you will need to meet any entry requirements for Postgraduate Research admissions at the chosen university and the relevant School/ Department the project is

based in. This may include English Language requirements, academic requirements etc.

Please contact the project supervisors if you are unsure.

Structured CV - Education and Qualifications

First degree award (BSc, BA, Integrated Masters, etc.)

14. Name of programme studied *

15. Institution studied at *

16. Has this been awarded or is it ongoing? *

Awarded

Ongoing

17. Expected completion date *

18. Predicted grade *

19. Date awarded *

20. Classification (grade) awarded for the first degree *

21. Dissertation (or final project) title(s) - if applicable.

22. Dissertation (or final project) grade/expected grade - if applicable

23. I have uploaded transcripts of my degree or entered my predicted grade (provisional transcript) when I completed the University of Leeds online application form *

Please send transcripts to ENV-PGR@Leeds.ac.uk if you have answered no to this question.

Yes

No

Structured CV - Education and Qualifications

Second degree award (MSc, MA, Masters etc...)

24. I have completed or am undertaking a second/further degree *

Second degree award (MA, MSc etc)

Yes

No

25. Name of programme studied *

26. Institution studied at *

27. Has this been awarded or is it ongoing? *

Ongoing

Awarded

28. Expected completion date *

29. Predicted grade *

30. Date awarded *

31. Classification (grade) awarded for second degree *

32. I have uploaded transcripts of my degree/s or entered my predicted grade when I completed the University of Leeds online application form *

Please send your transcripts to ENV-PGR@Leeds.ac.uk if you have answered no to this question.

- Yes
- No

Structured CV - Education and Qualifications

Additional relevant qualifications and experience

33. Please list any further qualifications relevant to the project applied for (less than 50 words)

34. Peer-reviewed publications and presentations are not required to apply to the UNRISK CDT, but if you have any please list them here.

Structured CV - Education and Qualifications

Employment History & Work Experience or Internships

Please include in this section any **relevant** employment, work experience or internships. You will have the opportunity to refer to them and explain their relevance in the structured personal statement.

35. Employer 1 - Employer name

36. Start date

37. End date

38. Job title

39. State role and responsibilities (less than 20 words)

40. Employer 2 - Employer name

41. Start date

42. End date

43. Job title

44. State role and responsibilities (less than 20 words)

45. Employer 3 - Employer name

46. Start date

47. End date

48. Job title

49. State role and responsibilities (less than 20 words)

50. Employer 4 - Employer name

51. Start date

52. End date

53. Job title

54. State role and responsibilities (less than 20 words)

55. Please list any other relevant academic or professional training or experience you have gained not already covered. You will have the opportunity to refer to them and explain their relevance in the structured personal statement (less than 50 words).

Structured Personal Statement

56. What motivates you to do a PhD? (less than 100 words) *

57. What attracts you to a PhD in a centre for doctoral training and in UNRISK in particular? (less than 100 words) *

58. What motivates your first choice of PhD research project and the associated supervisory team? (less than 200 words) *

59. What motivates your second choice of PhD research project and the associated supervisory team (if applicable)? (less than 200 words)

60. What skills and experiences have prepared you for PhD research?

We are looking for a narrative explaining how your knowledge, understanding, skills and experiences in education, research, work or life have prepared you for UNRISK. (less than 250 words) *

61. Is there anything that you would like to tell us about your personal circumstances that affect your application? For example, caring responsibilities, bereavement, etc. This information will be used to contextualise the assessment of your application. (less than 100 words)

Fee Status

62. Are you a UK/Home fees applicant?

Guidance on whether you are eligible for home fee status is available [here](#). *

- UK/Home fees
- International / overseas fees

Applicants from under-represented groups

UNRISK is ringfencing 5 interview slots in 2025 and is in the process of obtaining approval for a ring-fenced studentship for UK/Home fees applicants who self-identify as from under-represented groups within NERC. UNRISK has identified the following groups for UK/Home fee status applicants:

- o Black, Asian & minority ethnic groups (self-identify)
- o Disabled people (self-identify)
- o Applicants from a disadvantaged socio-economic background (self-identify, fulfil any of the four sub-criteria). Criteria based on the 2021 Social Mobility Commission Socio-economic diversity and inclusion [Employers toolkit](#) and [recently updated government guidance](#).

If you wish to be considered for these ring-fenced opportunities, please complete this [form](#). Please note this form is separate from the Equity, Diversity and Inclusion (EDI) questions which are part of the University of Leeds online application form (OLA) that you completed at Stage 1. This is because the data collected on the OLA is used solely for reporting to the funder (NERC) and not for EDI initiatives that we are developing in UNRISK.

Declaration

63. The information given on this form is complete and accurate to the best of my knowledge and I believe it gives a true description of my qualifications and experiences. *

Yes