POLITECNICO DI MILANO

PhD in SCIENCE, TECHNOLOGY AND POLICY FOR SUSTAINABLE CHANGE - 41st cycle

THEMATIC Research Field: MODELING CLIMATE RISK PERCEPTION IN COUPLED HUMAN-NATURAL SYSTEMS VIA SOCIAL LEARNING (FIS 2025)

Monthly net income of PhDscholarship (max 36 months)
1600.0 In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity	
Motivation and objectives of the research in this field	In a changing climate and society, the importance of cross-sector interactions becomes crucial for understanding the co-evolution of human and natural systems, where the role of individual and collective human decisions is a major driver of system vulnerabilities and adaptive capacity. While mathematical models of natural processes have been studied and developed for centuries and, today, they are extremely sophisticated at fine spatial and temporal scales, there is an urgent need to shed light on the key role of human behaviors across multisector systems. The research will aim at addressing risk assessment by delving into stakeholders' experiences and preferences from a triple-loop approach (risk awareness, risk perception, and risk adaptation) to explore how Social Learning and user-driven indicators can contribute to understanding how stakeholders perceive and respond to changing environmental and climatic conditions and adapt their behavior under different scenarios. The position is cofounded by the Fondo Italiano per la Scienza (FIS2) project BERLIN – BEhavioRaL INTelligence for evidence-based adaptation policies.
Methods and techniques that will be	State of the art Social Learning methods, including both

developed and used to carry out the research	State of the art Social Learning methods, including both qualitative and quantitative techniques, will be used for stakeholders' mapping and analysis in tandem with semi-structured interviews, group discussions, collective workshops, and structured questionnaire to identify stakeholders' climate risk narratives and adaptation behaviors.
Educational objectives	The doctoral program offers advanced training organized in three pillars: •Basic Research, which includes methodological courses related to key aspects of theoretical and applied research in science, policy, and technology of sustainable change; •Specific Research, designed to strengthen candidates' knowledge on specific topics aligned with their research interests and increase their presence in the international scientific community through participation in conferences and presentation of their scientific work in academic contexts. •Development of the Doctoral Thesis, which allows candidates to develop leading-edge research competencies and produce original scientific work on a topic that contributes to scientific debate and has societal impacts A period of study in worldwide most recognized research institutions is supported by the doctoral school and the supervisor
Job opportunities	The PhD graduates will be equipped with distinctive skills and advanced trans-disciplinary knowledge that open up career opportunities as analysts, researchers, or planners at universities, international research centers, public and international institutions, R&D departments, regulatory authorities, policy institutions, and other public bodies.
Composition of the research group	1 Full Professors 1 Associated Professors 5 Assistant Professors 10 PhD Students

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Name of the research directors	Matteo Giuliani

Contacts
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents	--

Scholarship Increase for a period abroad	
Amount monthly	800.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
A desk in the lab offices and a personal laptop will be provided over the duration of the PhD programme. Teaching assistantship opportunities might be available over the triennium. Supercomputing facilities are available both at the department and with external associated partners. “Finanziato del Ministero dell’Università e della Ricerca nell’ambito dell’Avviso FIS 2 (Fondo Italiano per la Scienza) FIS-2023-01421/ Progetto BERLIN - BEhavioRaL INtelligence for evidence-based adaptation policies / CUP: D53C25000810001” / “*Funded by the Italian Ministry of University and Research under the FIS 2 Call (Italian Science Fund), project FIS-2023-01421 / BERLIN - BEhavioRaL INtelligence for evidence-based adaptation policies / CUP: D53C25000810001*”