**Catastrophic Risks and Real Estate Markets  
 Flood Zone Pricing Across Borders**

A Project for the Course on Catastrophic Risks

**Patryk Wisniewski (ENSAE)**3A / M2MIE

**Abstract**

This thesis examines the relationship between flood risk, insurance systems, and property pricing through a cross-country comparative analysis. Using comprehensive real estate transaction data and flood risk maps, a detailed dataset of every cadastral parcel exposed to flood risks in France was developed. A simple hedonic pricing model highlights significant differences in how flood-prone properties are valued under France's CatNat system and the UK's FloodRe scheme. While the UK market penalizes properties in at-risk zones with lower prices, France's solidarity-based approach mitigates these negative effects. These findings raise concerns about the long-term sustainability and efficiency of the CatNat system, a framework that has provided universal coverage for over 40 years but now faces mounting challenges in addressing the growing risks associated with climate change.

**ENSAE Paris  
Academic Year 2024-2025**

**Supervisor: Professor Pierre Picard  
Catastrophic Risks, Cyber Risk and Insurance Markets**