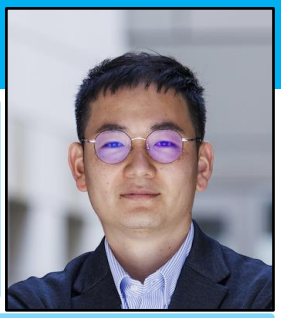

R&D Project Title：Building a Vision–Language Benchmark Framework for Disaster Response

Principal Investigator：Naoto Yokoya （Professor, GSFS, The University of Tokyo）
Co-PI：Kazuki Yamanoi （Kyoto University）・Bruno Adriano （Tohoku University）

Grand Challenge and Goal： Construct a “Disaster × Vision–Language” benchmark integrating physical simulation and generative AI, address the bias and scarcity of real–world disaster data, and establish an evaluation framework that enables human–AI collaboration in disaster response

Summary：

- Design and build a vision–language benchmark from integrated multi–platform, multi–sensor, multi–hazard data
- Create multi–platform, multi–sensor synthetic disaster imagery by coupling physics simulations with generative AI
- Develop auto–annotation methods for disaster imagery that ensure semantic and physical consistency
- Evaluate AI flexibility via VQA and visually grounded answers, and validate usefulness and trust with disaster–response practitioners
- Release an open synthetic + real disaster benchmark to accelerate disaster–response AI research

Social Impact：

- Accelerate disaster–response situational–awareness/decision–support AI and define what makes AI trusted by practitioners
- Enable high–accuracy, flexible disaster decision support via vision–language integration and human–AI collaboration