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## **Joint Keynote: Innovating at the Intersection: Software Engineering for Science and Industry**

*Wednesday 26 February 2025 09:00 (1h 30m)*

Since the inception of the discipline at the NATO Software Engineering Conferences in the late 1960s, software engineering research and practice have primarily concentrated on business and embedded software, particularly in industrial sectors like finance and automotive. Research software that is designed and developed to facilitate research activities in various fields of science or engineering has been largely overlooked by software engineering research. However, there is an increasing acknowledgment of research software as an essential artifact and of research software engineers as a vital profession. On the one hand, research software propels scientific advancements, fosters open science principles, and plays a pivotal role in informing significant policy decisions, such as those related to climate action. On the other hand, it frequently serves as the foundation for software stacks in cutting-edge technologies like Quantum Computing, Artificial Intelligence, and Digital Twin applications. Thus, there is an increasing demand for software engineering methods specifically tailored to research software, with the potential to benefit software development in traditional business domains as well.

Drawing from my experiences in academic research at universities, research software engineering at the German Aerospace Center (DLR), as well as software engineering in industry, in this talk I will explore the commonalities and differences between software engineering in industrial and scientific settings. I will also shed light on the landscape of research software engineering and clarify its significance to modern software engineering research.

### **I want to participate in the youngRSE prize**

**Presenter:** FELDERER, Michael (DLR)