Contribution ID: **90** Type: **Workshop or Hackathon**

MATLAB Tools for Sustainable Research Software Development

Thursday 27 February 2025 14:00 (3 hours)

Sustainability in research software is crucial to ensure others can understand, reproduce, and build upon your work effectively, potentially extending its functionality with new algorithms and its applications to new domains. In this tutorial, you will learn about tools you can leverage in the MATLAB ecosystem to effectively enhance the maintainability and reusability of your research software.

In this session designed for Research Software Engineers (RSEs) who are already familiar with clean code principles, you will deepen your understanding and practically implement these practices within the MATLAB environment.

You will explore a range of tools and features that facilitate sustainable software development. Key topics include:
• **Code Refactoring Tools:** Leveraging built-in functionalities to refactor and enhance code readability.
• **Testing Frameworks:** Implementing tests using MATLAB testing frameworks to ensure robust, error-free code and using Continuous Integration (CI) for automatic testing.
• **MATLAB Project Management:** Utilizing project files and dependencies to organize and manage development environments effectively.
• **Version Control Integration:** Seamlessly integrating MATLAB with popular version control systems like Git for collaborative development and code tracking.

Who Should Attend: This tutorial is designed for RSEs, researchers, and developers with a foundational understanding of clean code who wish to enhance their MATLAB skills for sustainable software development.

I want to participate in the youngRSE prize

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Track Classification: Education: RSE education