DataLab: Bridging Scientific and Industrial Worlds for Advanced Signal and Image Processing



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WHAT IS DATALAB?

 Open-source platform for processing and visualizing data:

ID signals or 2D images

• Built on Python and scientific libraries



FEATURES

- 150+ processing and I/O features
- Workspace for manipulating data and easily prototyping a processing sequence
- Straightforward interface
- Communication with your IDE or notebook, for reusing your own libraries

EXAMPLES OF TECHNICAL DOMAINS

- Plasma experiments on the Laser Mégajoule facility
- Research/education in **Optics and Photonics**

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B Université Jean Monnet Saint-Étienne

FOUR KEY STRENGTHS

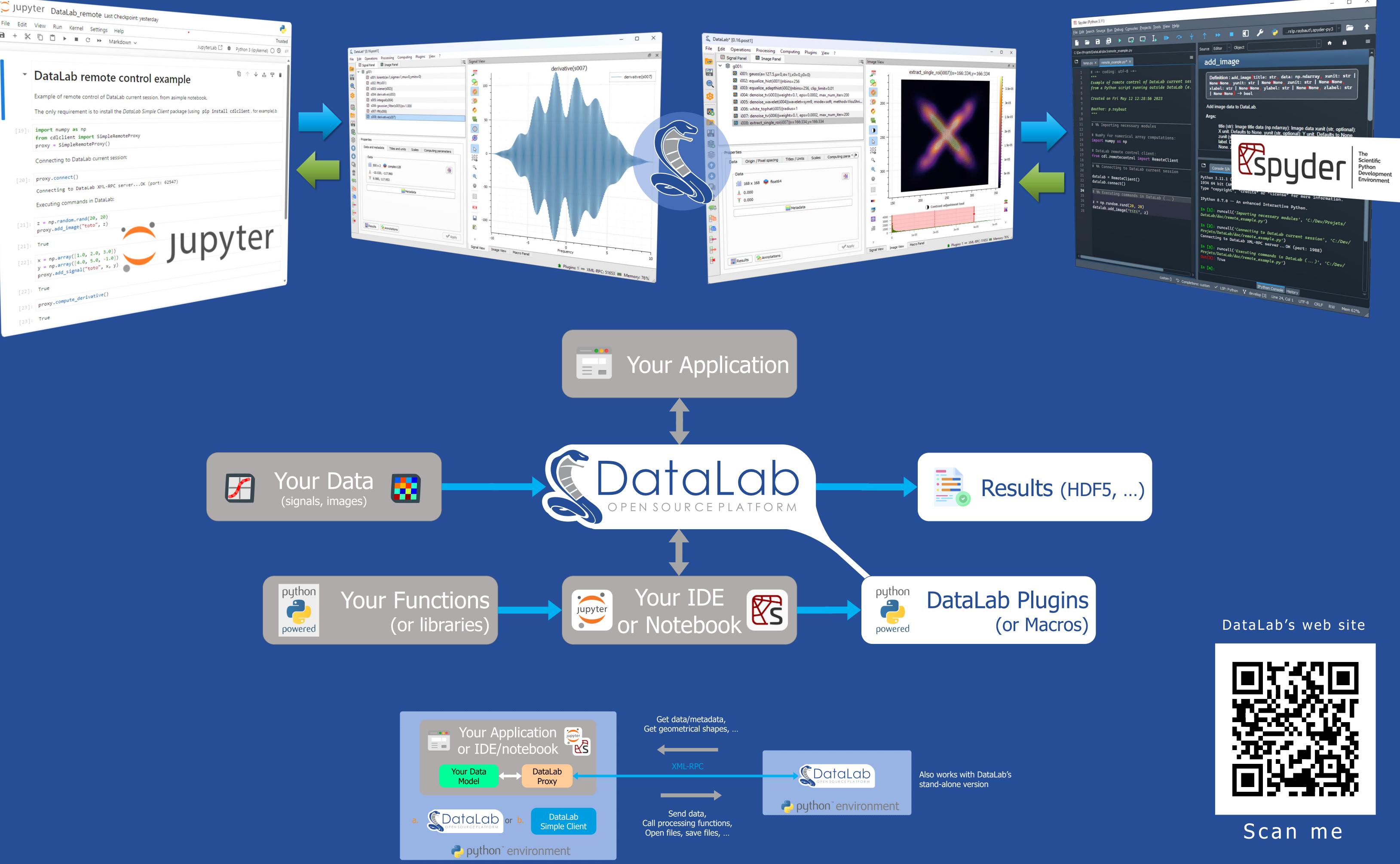
- **1.Extensibility:** (with Python scripts)
 - Plugins
 - Macro-commands
- 2.Interoperability:
 - Embeddable
 - Remotely controllable
- 3.Automation:
- High-level public API
- Remotely controllable
- 4. Maintainability and testability:
 - Industrial-grade software
 - 90% automated test coverage



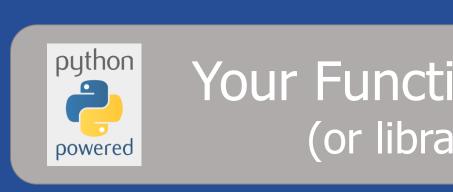


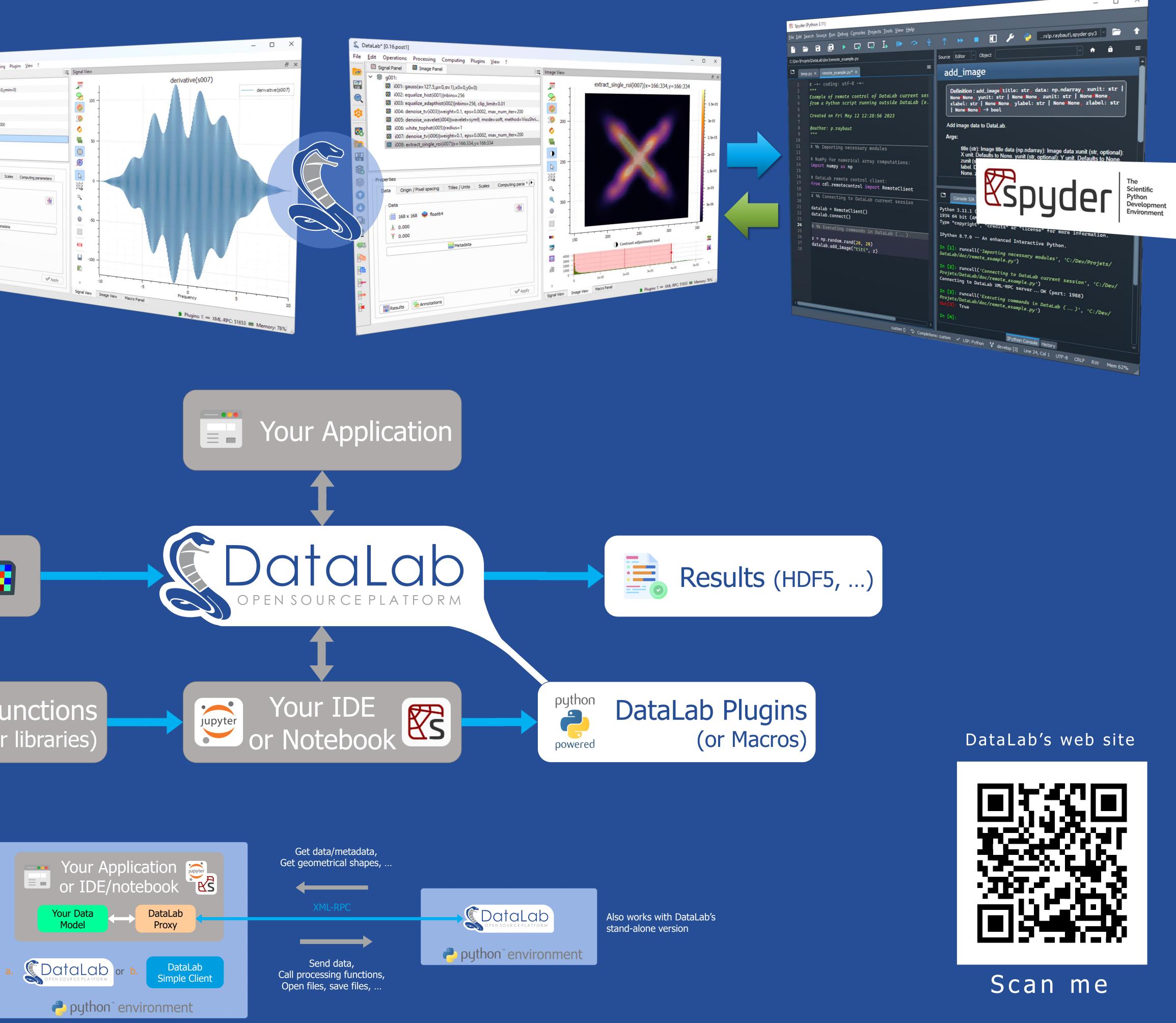


USE CASES









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1. Processing/visualizing your signals and images 2. Prototyping your processing pipeline 3. Debugging your processing application 4. Enhancing your application with processing features