

# Developments in the Single Particle Imaging Analysis Pipeline at LCLS

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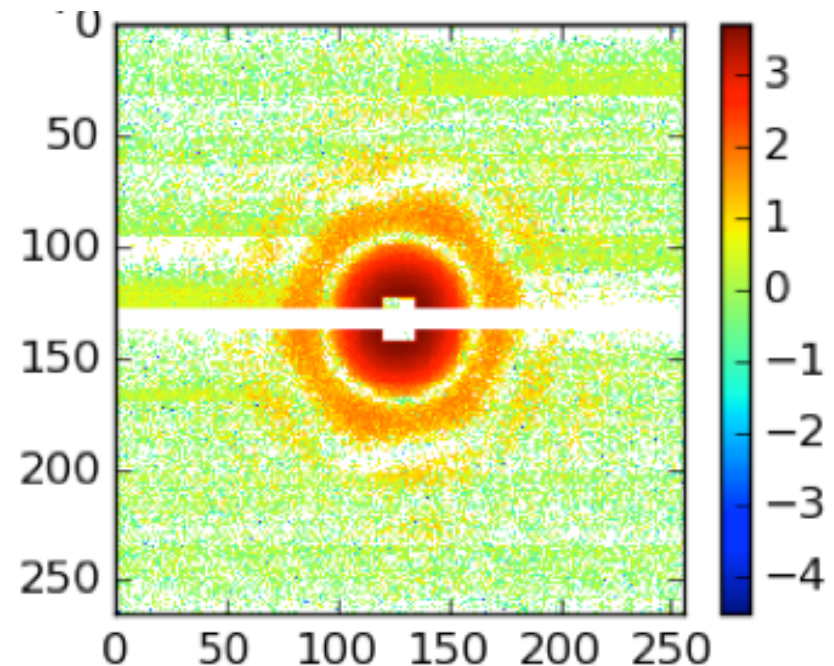
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# Single Particle Imaging Initiative

- The Single Particle Imaging (SPI) initiative is a large international collaboration of researchers lead by LCLS to advance coherent diffractive imaging of biomolecules.
- A pipeline composed of psana modules to accommodate the new algorithms.

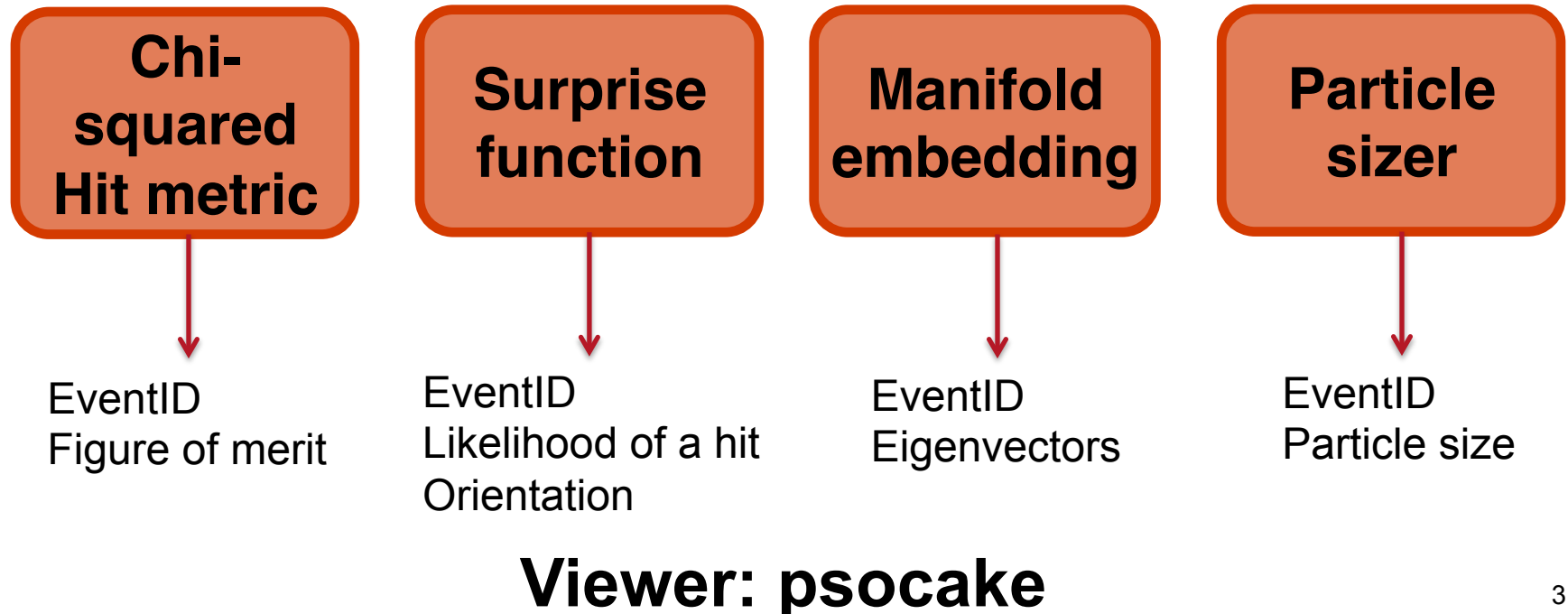
## Analysis Environment:

- Language: Python
- Data format: HDF5
- Parallelism: MPI
- Viewer: Pyqtgraph
- Toolbox: Scikit-beam

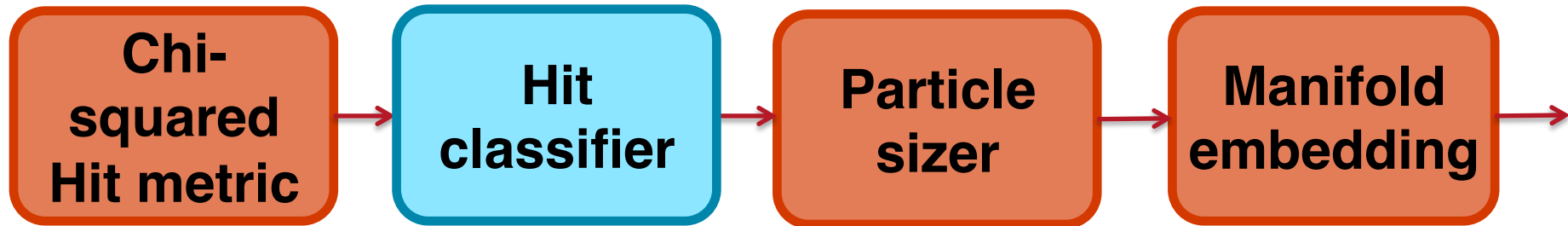


- Small data addresses the need to conserve disk space at LCLS
- The small data saves “small” figures of merit for each event (without saving “big” images) for query/retrieval
- Save “big” images at the end of the analysis

## Small data from a calibrated image



Example 1)



Example 2)

