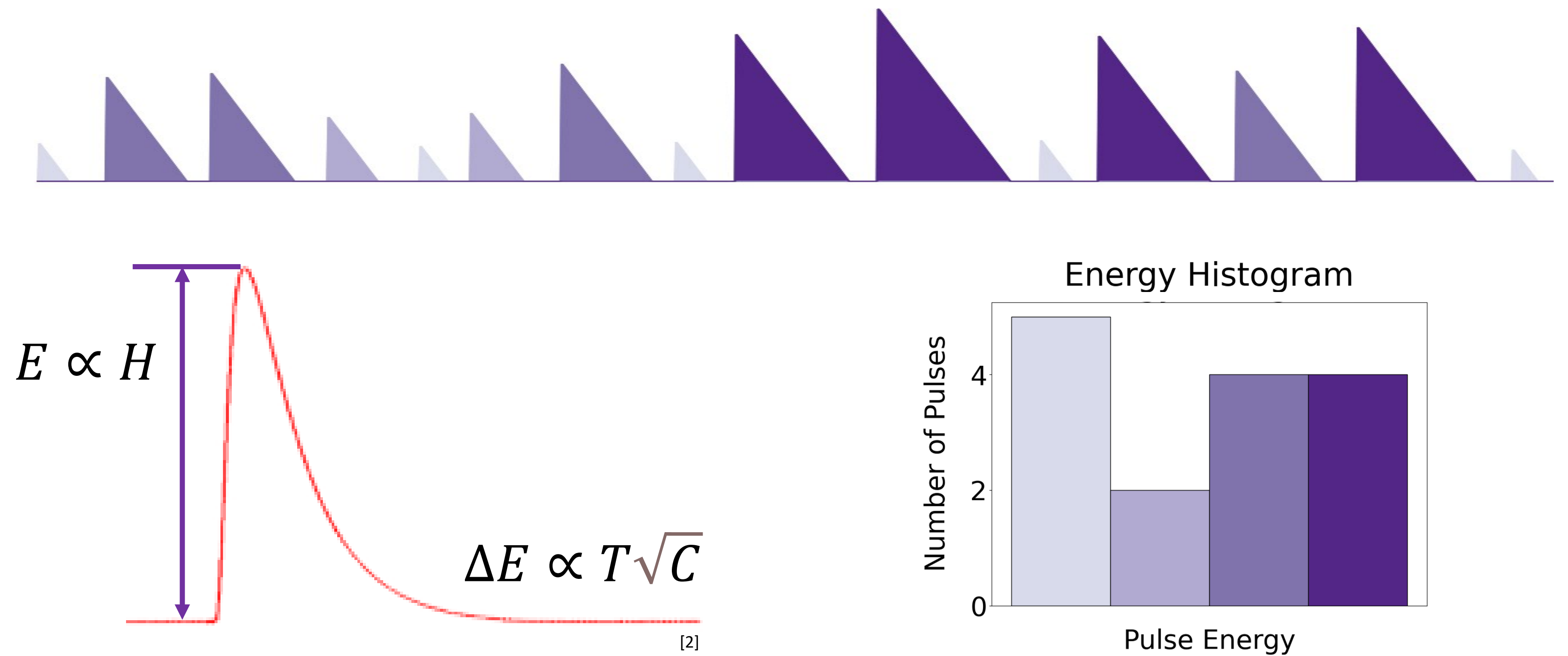
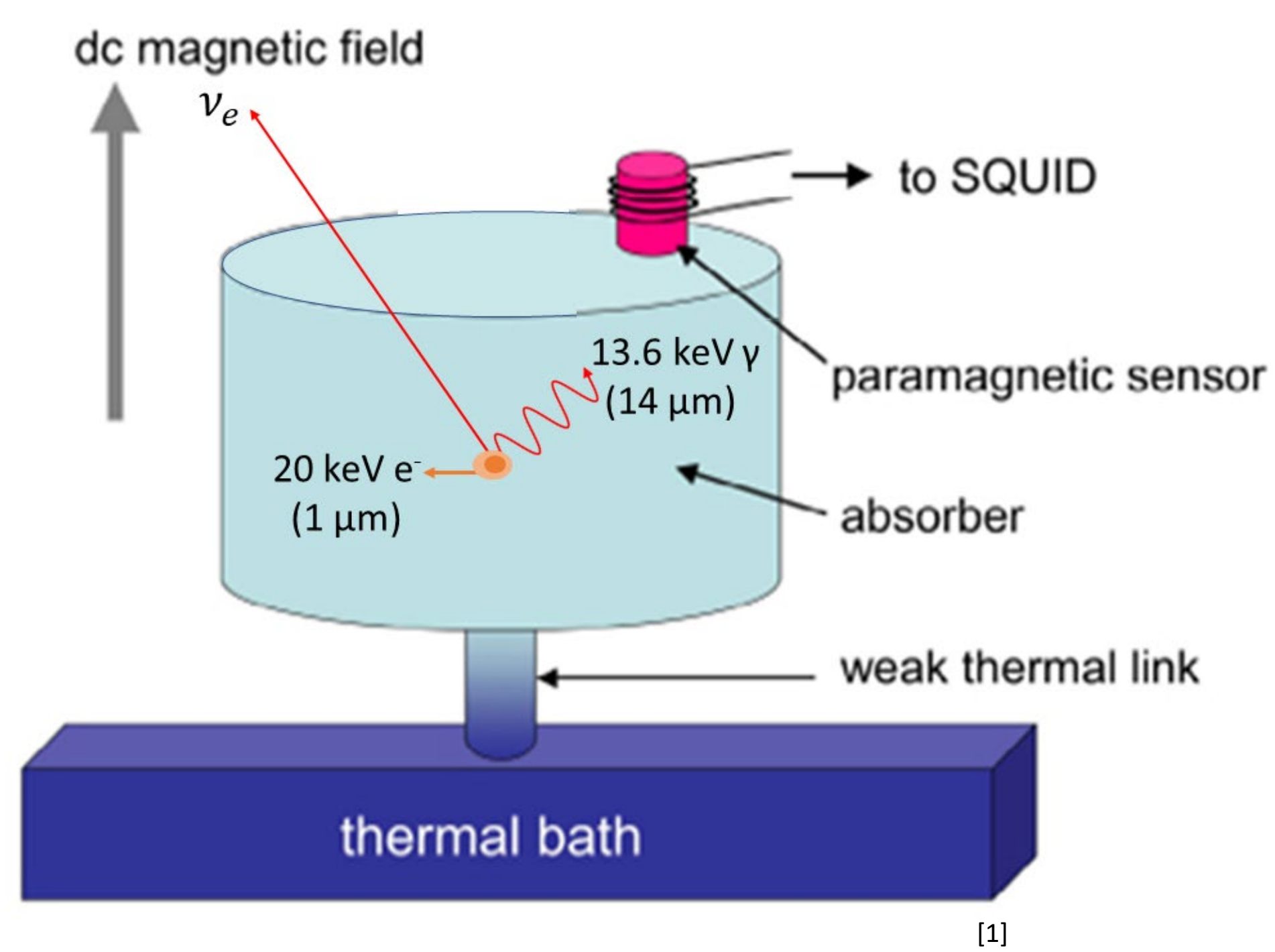


Simulating Low Temperature Detector Pulse Streams and Developing Edge Triggers

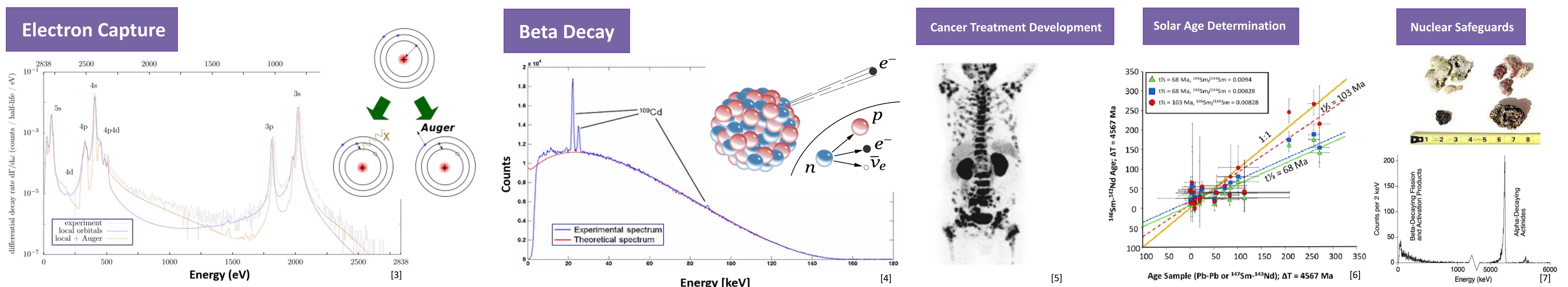
Timothy R. Ockrin and Katrina E. Koehler

Physics Department · Houghton College · One Willard Ave · Houghton, NY

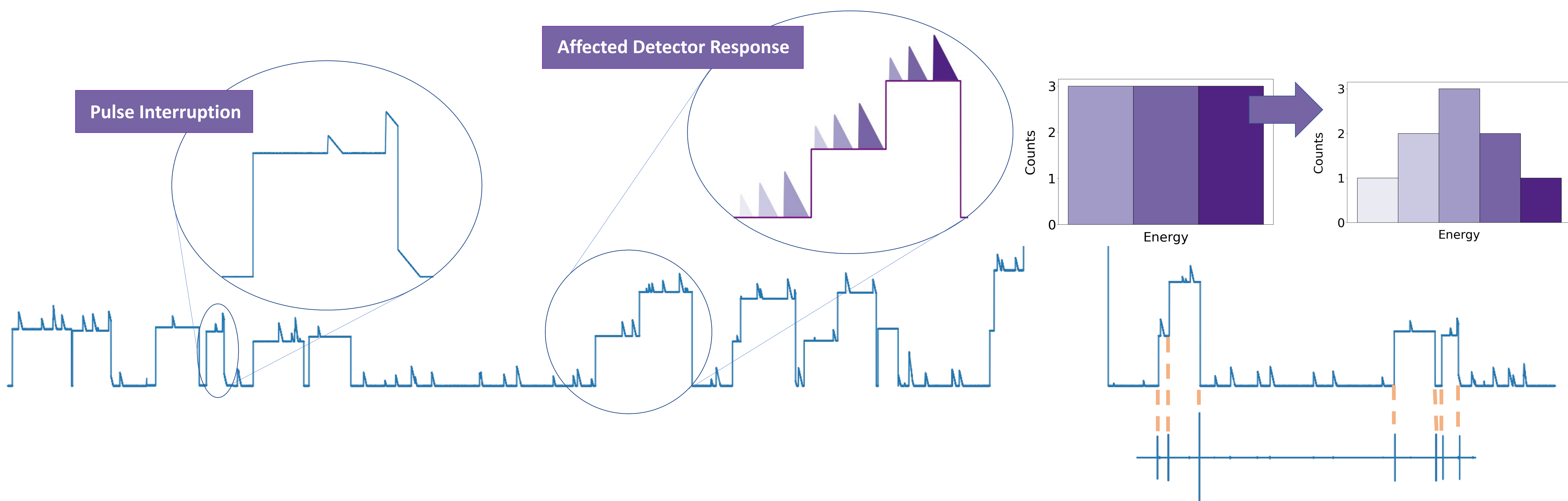
A Metallic Magnetic Calorimeter (MMC) measures total decay energy with high resolution.



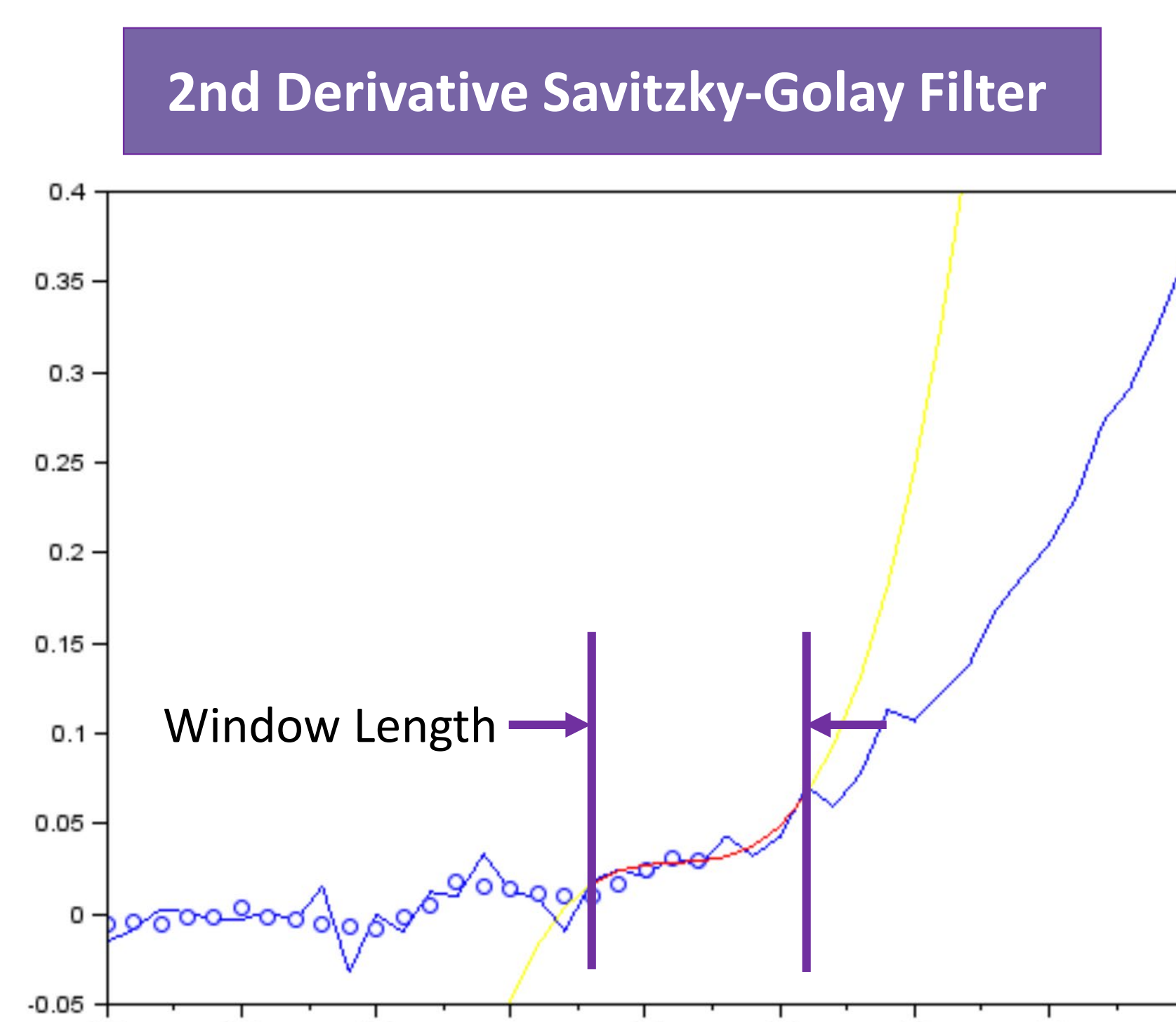
MMCs have multiple applications in metrology, cancer treatment development, nuclear safeguards, and solar age determination.



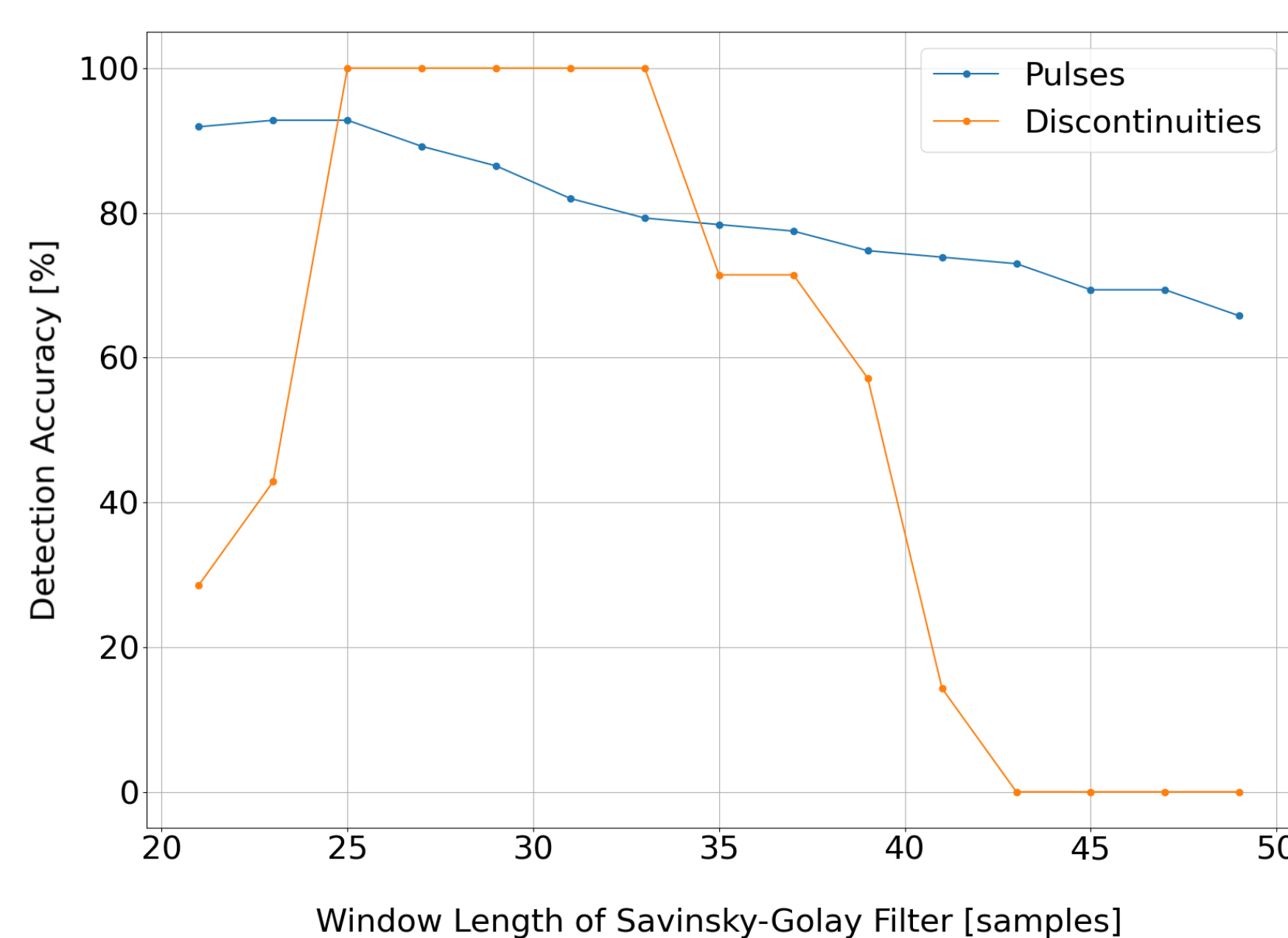
Discontinuities in pulse streams can interrupt pulses or affect detector response.



An Edge Trigger is explored to locate discontinuities.



Accuracy of Savinsky-Golay Edge Trigger on Various Window Lengths



Future Steps

- Improve existing edge trigger
- Create alternative edge triggers
- Compare detection accuracy of each edge trigger on experimental data
- Correlate discontinuities with detector and environmental conditions

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