

Abstract Submitted
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Tuning to fast changing phenomena with real-time digital processing FEDOR BALAKIREV, Los Alamos National Laboratory — A new crop of computationally-intensive digital signal detection techniques brought to light the need for speedier data processing approaches, where conventional data acquisition techniques fall short. We review recent advances in real-time solutions which enable sophisticated fast-feedback detection schemes with sub-microsecond tuning to rapidly changing physical phenomena. The apparatus is particularly suitable for pulsed magnetic field measurements of superconducting critical currents and high-frequency oscillatory signals, among others.

Fedor Balakirev
Los Alamos National Laboratory

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