

CRUNCH Seminars at Brown, Division of Applied Mathematics

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Physics-Driven Synthetic Data Learning for Biomedical Magnetic Resonance

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Deep learning has driven innovation in the field of biomedical magnetic resonance, but encounters the bottleneck of insufficient or even unavailable training data. In this talk, we will discuss an emerging paradigm, imaging physics-based data synthesis for network training. Signal generation models, enhanced data generation and advanced neural network structures with representative applications, particularly on fast and parametric magnetic resonance imaging and spectroscopy, are discussed.