SOLVING INVERSE PROBLEMS WITH DEEP LEARNING

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ABSTRACT

Inverse problems, which involve deducing unknown parameters from observed data, are frequently met in various fields, including engineering, medical imaging, and environmental sciences. As industries increasingly rely on data-driven methodologies, the need for innovative solutions to complex inverse problems has surged. This mini-symposium aims to foster collaboration between academia and industry by exploring the transformative potential of deep learning in addressing these challenges.

The session will showcase cutting-edge research that highlights deep learning techniques designed to tackle inverse problems efficiently and accurately. We will feature talks who will discuss Deep Learning-based methodologies and illustrate practical applications and real-world case studies, demonstrating how these advanced computational approaches can lead to significant improvements in problem-solving efficacy and speed.

Our objectives are twofold: first, to bridge the gap between theoretical research and practical implementation, and second, to stimulate discussions that pave the way for collaborative projects between academic institutions and industry leaders. The mini-symposium aims to provide insights into current trends in inverse problem-solving, identify key challenges faced in various sectors, and explore potential avenues for joint ventures and research initiatives.