

A JOURNEY THROUGH ALGORITHM UNROLLING FOR INVERSE PROBLEMS

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Inverse problems are ubiquitous in observational science such as imaging, neurosciences, or astrophysics. They consist of recovering a signal given noisy observations through a measurement operator. To solve such problems, Machine learning approaches have been proposed based on algorithm unrolling. With such techniques, classical optimization algorithms used to solve inverse problems can be seen as differentiable procedures with parameters that can be learned.