The Unreasonable Effectiveness of Bregman Iteration for L1 Type Optimization

Stanley Osher
University of California, Los Angeles

Bregman iteration has been around since 1967. It turns out to be unreasonably effective for optimization problems involving L1, BV and related penalty terms. This is partly because of a miraculous cancellation of error. We will discuss this and give applications, including, of course, compressive sensing and Total Variation based restoration.