

Short and Squeezed: Accelerating the Computation of Antispase Representations with Safe Squeezing

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Abstract Antispase coding aims at spreading the information uniformly over representation coefficients and can be expressed as the solution of an ℓ_1 -norm regularized problem. In this paper, we propose a new methodology, coined "safe squeezing", accelerating the computation of antispase representations. The idea consists in identifying saturated entries of the solution via simple tests and compacting their contribution to achieve some form of dimensionality reduction. Numerical experiments show that the proposed approach leads to significant computational gain.

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