

1098-65-211

Xuemei Chen* (xuemeic@math.umd.edu) and **Alexander M. Powell**. *Fusion frames and randomized subspace actions*.

A randomized subspace action algorithm is investigated for fusion frame signal recovery problems. It is shown that Kaczmarz bounds provide upper bounds on the algorithm's error moments. Moreover, the question of which probability distributions on a random fusion frame lead to provably fast convergence is addressed. In particular, it is proven which distributions give minimal Kaczmarz bounds, and hence give best control on error moment upper bounds arising from Kaczmarz bounds. Uniqueness of the optimal distributions is also addressed. This is a work with Alex Powell. (Received January 26, 2014)