

1106-41-636

Xuemei Chen*, 202 Mathematical Sciences Bldg, columbia, MO 65203, and **Alexander Powell**, Nashville, TN. *Fusion frames and randomized subspace actions*.

A randomized subspace action algorithm is investigated for fusion frame signal recovery problems. It is noted that Kaczmarz bounds provide upper bounds on the algorithm's error moments. The main 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. (Received September 03, 2014)