

Inverse Problems Network Meeting 6

Thursday, 12th December 2019 - Friday, 13th December 2019

University of Manchester

Abstract of Talk

CONSISTENT INVERSION OF NOISY NON-ABELIAN X-RAY TRANSFORMS

Prof Gabriel Paternain

University of Cambridge

I will discuss the problem of how to reconstruct a skew-hermitian field from its noisy scattering data (with applications to Polarimetric Neutron Tomography). In particular, I will address the question of when posterior distributions arising from Gaussian priors, and their posterior means consistently solve this non-linear statistical inverse problem in the (frequentist) large sample size scenario.

This is joint work with F. Monard and R. Nickl.