

1108-44-552

**Eric L Grinberg\*** ([eric.grinberg@umb.edu](mailto:eric.grinberg@umb.edu)), Department of Mathematics, UMass Boston, Boston, MA 02125. *Integral Geometric Transforms on Symmetric Spaces of Compact Type*. Preliminary report.

We discuss integral transforms in the context of symmetric spaces of compact type, such as projective spaces and grassmannians, typically involving integration along distinguished submanifolds; some of these may be viewed as extensions of the X-Ray transform that integrates along closed geodesics, and are of interest in applications. We'll consider questions of injectivity that are amenable to harmonic analysis methods on homogeneous spaces. For some transforms only injectivity is considered while for others, especially those related to complex structure, inversion formulas can be considered as well. (Received January 20, 2015)