

**Meeting:** 1003, Atlanta, Georgia, SS 4A, AMS-SIAM Special Session on Theoretical and Computational Aspects of Inverse Problems, I

1003-53-888      **Guillaume Bal\*** (gb2030@columbia.edu), 500 W. 120th Street, New York, NY 10027. *Explicit inversion of attenuated Radon transforms in hyperbolic geometry.*

Explicit reconstructions for the two-dimensional attenuated Radon transform were recently obtained in Euclidean geometry. The method used to obtain the inversion formulas was based on extending the geodesic vector field into the complexified tangent plane and formulating the reconstruction as a Riemann-Hilbert problem. I will consider this methodology to address the inversion in non-Euclidean geometry. (Received September 30, 2004)