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**Adel Faridani\*** ([faridani@oregonstate.edu](mailto:faridani@oregonstate.edu)). *Numerical implementation of  $\pi$ -line reconstruction formulas in tomography.*

$\pi$ -line inversion formulas give rise to a versatile class of reconstruction algorithms in computed tomography that can be adapted to a variety of data acquisition geometries. These formulas share a certain view dependent derivative of the data function which has to be implemented accurately in each case. This is especially important when the source curve is not circular and standard discretization schemes may perform poorly. This talk will present and analyze a general method to derive accurate discretizations for the view dependent derivative. (Received September 19, 2016)