1163-AD-113 **Yury Grabovsky** and **Narek Hovsepyan*** (narek.hovsepyan@temple.edu). *Optimal error estimates for analytic continuation from a curve with imprecise data.*

Analytic functions in a domain Ω are uniquely determined by their values on any curve Γ lying in the interior (or on the boundary) of Ω. We are interested in a sharp quantitative version of this statement. Given f analytic and of order one in Ω, assume that it is small on Γ (say, of order ϵ), how large can f be at a point z away from the curve? When the sizes of f are measured in Hilbert space norms we give a sharp bound on $|f(z)|$ in terms of a linear integral equation of Fredholm type. We show that the bound behaves like a power law ϵ^γ for some $\gamma = \gamma(z) \in (0, 1)$. In special geometries (such as the annulus, ellipse or upper half-plane) the solution of the integral equation and the corresponding exponent can be found explicitly. (Received August 16, 2020)