1125-41-220 **Maxim L Yattselev*** (maxyatts@iupui.edu), 402 North Blackford Street, LD 251, Department of Mathematical Sciences, IUPUI, Indianapolis, IN 46202, and **Alexander Aptekarev** and **Alexander Bogolubsky**. *Szegő-type asymptotics for ray sequences of Frobenius-Padé approximants.*

Let $\widehat{\sigma}$ be a Cauchy transform of a possibly complex-valued Borel measure σ and $\{p_n\}$ be a system of orthonormal polynomials with respect to a measure μ, $\operatorname{supp}(\mu) \cap \operatorname{supp}(\sigma) = \varnothing$. An (m,n)-th Frobenius-Padé approximant to $\widehat{\sigma}$ is a rational function P/Q, $\deg(P) \leq m$, $\deg(Q) \leq n$, such that the first $m+n+1$ Fourier coefficients of the linear form $Q\widehat{\sigma}-P$ vanish when the form is developed into a series with respect to the polynomials p_n. Asymptotics of the Frobenius-Padé approximants to $\widehat{\sigma}$ along ray sequences $\frac{n}{n+m+1} \to c > 0$, $n-1 \leq m$, is presented when μ and σ are supported on intervals on the real line and their Radon-Nikodym derivatives with respect to the arcsine distribution of the respective interval are holomorphic functions. (Received August 13, 2016)