1106-32-188 **Evan Castle** (esca225@g.uky.edu), **Debraj Chakrabarti** (chakr2d@cmich.edu) and **David Gunderman*** (djgunder15@wabash.edu), 11650 E Sycamore St., Zionsville, IN 46077, and **Ellen Lehet** (lehetev195@potsdam.edu). *Hölder estimates for Cauchy-Type Integrals in several variables.*

We prove estimates in Hölder spaces for some Cauchy-type integral operators representing holomorphic functions in Cartesian and symmetric products of planar domains. For example, we consider the following n-dimensional analog of the Cauchy Integral:

$$\mathcal{B}_n\phi(z_1,\dots,z_n)=\frac{1}{2\pi i}\int_\Gamma \frac{\phi(t)dt}{(t-z_1)(t-z_2)\dots(t-z_n)},$$

where the smooth curve Γ is the boundary of a domain U in the plane, ϕ is continuous on Γ and $\mathcal{B}_n\phi$ is a function of n complex variables. We prove the following result: *For $k\geq 0$ and $0<\alpha<1$, the map $\mathcal{B}_n$ is continuous from $\mathcal{C}^{k+n-1,\alpha}(\Gamma)$ to $\mathcal{C}^{k,\alpha}(U^n)$.* Though the kernel of the integral transform is analytic, the mapping $\mathcal{B}_n$ displays a loss of smoothness. (Received August 06, 2014)