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Real analytic expansion of spectral projection and extension of Hecke-Bochner identity

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In this article, we review the Weyl correspondence of bigraded spherical harmonics and use it to extend the Hecke-Bochner identities for the spectral projections $f\times\varphi_k^{n-1}$ for function $f\in L^p(\mathbb C^n)$ with $1\leq p\leq\infty.$ We prove that spheres are sets of injectivity for the twisted spherical means with real analytic weight. Then, we derive a real analytic expansion for the spectral projections $f\times\varphi_k^{n-1}$ for function $f\in L^2(\mathbb C^n).$

Comments:	18 pages, accepted for publication in Israel J. Math. An application of expansion of the spectral projections has been observed as Proposition 4.4
Subjects:	**Functional Analysis (math.FA)**
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