1099-46-383 **Stephen Avsec*** (savsec@math.tamu.edu). *Noncommutative gaussian functors.*

The classical gaussian functor affiliates a family of centered gaussian variables $g(\xi)$ to each element ξ in a real Hilbert space H. From this affiliation, for any contraction $u : H \to K$ for Hilbert spaces H and K, we can define a positive map from $\Gamma(u) : L^\infty(\Omega(H), d\mu) \to L^\infty(\Omega(K), d\nu)$ where $L^\infty(\Omega(H), d\mu)$ is generated by the (spectral projections) of the variables $g(\xi)$. We define analogous functors from the category of real Hilbert spaces with contractions to von Neumann algebras with completely positive maps. We will then discuss recent applications of this definition. This includes joint work with Marius Junge and Benoit Collins. (Received February 11, 2014)