962-60-391 **Mylan Redfern*** (`m.redfern@usm.edu`), Mylan Redfern, Department of Mathematics, University of Southern Mississippi, Hattiesburg, MS 39406-5045. *Complex white noise.*

We describe a new space, $(\mathcal{D}_{\mathbb{C}}^*)$, of complex Wiener distributions for the analysis of multi-parameter generalized stochastic processes $\theta : \mathbb{R}^N \to (\mathcal{D}_{\mathbb{C}}^*)$. For a certain class of functions $F : \mathbb{C}^m \to \mathbb{C}$ and complex multiple Wiener integrals $\Phi_1, \ldots, \Phi_m$, $F(\Phi_1, \ldots, \Phi_m)$ is defined as an element of $(\mathcal{D}_{\mathbb{C}}^*)$ and its Fock space decomposition is given. (Received September 14, 2000)