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**Ezekiel Olusola Ayoola\*** (eoayoola@googlemail.com), Department of Mathematics, University of Ibadan, Ibadan, Nigeria. *Arc-wise connectedness of solution sets of quantum stochastic differential inclusions.*

We show that the sets of solutions of quantum stochastic differential inclusions driven by stochastic processes associated with the basic field operators of quantum field theory are arc-wise connected. The results hold within the framework of the Hudson-Pathasarathy formulation of quantum stochastic calculus. This complements similar results in the classical cases of differential inclusions defined on finite dimensional Euclidean spaces. (Received July 10, 2010)