1135-60-359 **Fubao Xi**, School of Mathematics and Statistics, Beijing Institute of Technology, Beijing 100081, Peoples Rep of China, and **Chao Zhu*** (zhu@uwm.edu), Department of Mathematical Sciences, University of Wisconsin-Milwaukee, Milwaukee, WI 53092. *Jump Type Stochastic Differential Equations with Non-Lipschitz Coefficients: Non Confluence, Feller and Strong Feller Properties, and Exponential Ergodicity.*

This work considers multidimensional jump type stochastic differential equations with super linear growth and non-Lipschitz coefficients. After establishing a sufficient condition for nonexplosion, this paper presents sufficient non-Lipschitz conditions for pathwise uniqueness. The non confluence property for solutions is investigated. Feller and strong Feller properties under non-Lipschitz conditions are investigated via the coupling method. Sufficient conditions for irreducibility and exponential ergodicity are derived. As applications, this paper also studies multidimensional stochastic differential equations driven by Lévy processes and presents a Feynman-Kac formula for Lévy type operators. (Received August 28, 2017)