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Chang-shou Lin, Department of Mathematics, Taida Institute of Fundamental Research, National Taiwan University, Taipei, Taiwan, and Lei Zhang* (leizhang@math.uab.edu), 1300 University Blvd, 452 Campbell Hall, University of Alabama at Birmingham, Birmingham, AL 35294. Quantization phenomenon for a Liouville system.

In several fields of Physics, Chemistry and Ecology, an elliptic Liouville system is often used to describe various models. In this work we establish sharp estimates on the asymptotic behavior of the bubbling solutions of the system defined globally or locally. In addition, we also determine the locations of blow-up points. (Received August 01, 2008)