Localization estimate of solution for the 2D damped and forced Zakharov-Kuznetsov equation

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Abstract: Minjie Shan recently proved the weak global attractor for the damped and forced Zakharov-Kuznetsov equation in two dimensional Euclidean space below energy. By the weak attractor we mean the attractor in the weak topology. The global attractor is important, because asymptotic behaviors in large time of all solutions can be characterized by the global attractor. But the following natural question arises: Is this weak global attractor a global attractor in the strong topology? I talk about the localization estimate of solution, from which it turns out that the weak global attractor is a strong attractor. This is a joint work with Nobu Kishimoto (RIMS, Kyoto University) and Minjie Shan (Peking University).