

学术报告

Saddle solution of the Allen-Cahn equation in dimension 8

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Time: 15:00-16:00, August 16(Friday), 2019

Venue: Room 111, Center for Applied Mathematics

Abstract: The theory of Allen-Cahn equation and minimal surfaces are deeply connected. The famous De Giorgi conjecture about the classification of monotone solutions of Allen-Cahn equation is a parallel version of the Bernstein conjecture about minimal graphs. Another important result in minimal surface theory states that Simons' cone is area minimizing in dimension 8. A corresponding conjecture for the Allen-Cahn equation is that the saddle solution is stable (even energy minimizing) in dimension 8. In this talk, we discuss several qualitative properties of the saddle solution and show that the saddle solution is indeed stable in dimension 8.

欢迎大家参加！