

学术报告

Blow-up for the Davey-Stewartson System with the Subcritical Nonlinearity

朱世辉 副教授

四川师范大学

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报告摘要：In this talk, we study the two dimensional Davey-Stewartson system in the subcritical case $1 < p < 3$. By exploiting a new variational characteristic, we can obtain an increasing order of the subcritical non-linearity by the stability theory for nonlinear Schrodinger equations, and then construct the finite time blow-up solutions, which suggests the sharp threshold mass of blow-up and global existence for the Davey-Stewartson system in the case $1 < p < 3$. Moreover, we give the scaling blow-up rate for the Davey-Stewartson system without scaling invariance due to $\leq p < 3$. And we also find a precisely sharp criteria of blow-up and global existence for the Davey-Stewartson system in the case $3 < p < +\infty$.

欢迎大家参加！