第２３８回 広島数理解析セミナー （２０１９年度）

Hiroshima Mathematical Analysis Seminar No.238

日時 ： **１１月１日（金）１６：３０～１７：３０**

場所 ： **広島大学理学部 Ｂ７０７**

講師 ： 山添　祥太郎 氏 （京都大学）

題目 ： Pitchfork bifurcations and spectral stability of solitary waves in coupled nonlinear Schrödinger equations

要旨 ： We consider coupled nonlinear Schrödinger (CNLS) equations with a general nonlinearity. We assume that CNLS equations possess a solitary wave of which one component is identically zero and that the pitchfork bifurcation of this solitary wave occurs. Utilizing the Evans function approach, we show that the bifurcated solitary waves are orbitally stable if both components of them are positive and are spectrally unstable if they have a sign-changing component. Our assumptions are easier to verify than previous results. This talk is based on a joint work with K. Yagasaki.

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