２０２２年度 第７回 中央大学物理学科談話会
Physics Department Colloquium of Chuo University

講演者：**Professor Helmut R. Brand**
(University of Bayreuth, Germany)

題　目：**Dissipative Solitons Stabilized by Nonlinear Gradient Terms**

日　時：２０２３年３月３日（金）１５：００～１６：３０

場　所：中央大学後楽園キャンパス３号館３階３３０９号教室
（文京区春日 1–13–27；東京メトロ丸の内線, 南北線「後楽園駅」
または都営地下鉄大江戸線, 三田線「春日駅」から徒歩５分）

概　要：After reviewing briefly the properties of dissipative solitons (DSs) in the cubic-quintic complex Ginzburg-Landau equation, we discuss DSs stabilized exclusively by nonlinear gradient terms. These DSs have been found recently by Facao and Carvalho [1]. Here we elucidate their properties [2], study the influence of multiplicative noise [3] and investigate their time-dependent behavior [4], in particular the transition from oscillatory DSs to localized spatio-temporal disorder [5].

This talk is based on the joint work with O. Descalzi[1,2] and C. Cartes[2] ([1]University of Bayreuth, Bayreuth, Germany, [2]Universidad de los Andes, Santiago, Chile).

[1] M. Facao and M.I. Carvalho, Phys. Rev. E **92**, 022922 (2015), E **96**, 042220 (2017).

[2] O. Descalzi, J. Cisternas, and HRB, Phys. Rev. E **100**, 052218 (2019).

[3] O. Descalzi, C. Cartes, and HRB, Phys. Rev. E **103**, L050201 (2021).

[4] O. Descalzi, M.I. Carvalho, M. Facao and HRB, Chaos, **32**, 123107 (2022).

[5] O. Descalzi, C. Cartes, and HRB, Phys. Rev. E **105**, L062201 (2022).

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