

共同利用・共同研究拠点

明治大学先端数理科学インスティテュート
現象数理学研究拠点(CMMA)



MIMS/CMMA Seminar on Self-Organization

第28回 自己組織化セミナー

2019年11月26日(火) 16:00~17:00

明治大学中野キャンパス 6階 研究セミナー室

Non-Steady Resonant Wave Scattering by Small Particles

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Abstract

A survey of the recent results of the author in the unsteady high-Q resonant scattering of ultrashort pulses by a particle, whose size is comparable or smaller than the wavelength of the incident radiation at the carrier frequency is presented. It is shown that the unsteadiness of the scattering process may result in qualitative changes in the manifestation of the phenomenon both in the near-field and in far-field wave zones. Most attention is paid to the dynamics of the nonradiating anapole modes and dynamic Fano resonances, which are discussed in detail. Simple, analytically tractable models of driven coupled oscillators are proposed to describe the transient processes. Their comparison with the results of the direct numerical integration of the complete set of the Maxwell equations shows that the models exhibit high accuracy in the quantitative description of the phenomenon.

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参加自由です。皆様のお越しをお待ちしております。

・中野キャンパスへのアクセス

JR中央線快速・総武線、東京メトロ東西線／中野駅下車 北口より徒歩約8分

詳しくは、http://www.meiji.ac.jp/koho/campus_guide/nakano/access.html

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協賛：現象数理・ライフサイエンス融合教育プログラム