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Sensing with Femtosecond Laser Filamentation

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Message from the Guest Editors

Femtosecond filamentation is a unique nonlinear optical phenomenon observed extensively in liquids, solids, and gases, in which ultrashort laser pulses propagate over long distances with high intensity. Its applications in remote sensing, laser communication, laser fabrication, advanced laser technology, etc., have aroused broad research interests. During filamentation, several physical processes are involved. The scales of the space and time are also widely spanned in the study of filamentation, and the electromagnetic wave frequency covers broad range from ultraviolet to microwave. Currently, the study of the filamentation remains very challenging, being a new interdisciplinary frontier involving physics, chemistry, material science, biomedical science, environment, artificial intelligent, electronics, and so on.

It is expected that this coming Special Issue will benefit the community by reporting new advances in this forefront field crossing broad topics and help newcomers easily gain familiarity with the community.

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Special Issue



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Message from the Editor-in-Chief

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