

OPTICAL FORERUNNERS IN CRYSTALS
WITH PHOTOREFRACTIVE
DYNAMIC GRATINGS

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S u m m a r y

The slowing-down of light pulses which is due to the photorefractive wave coupling is accompanied by the fast propagation of the short initial part of a pulse that can be considered as a forerunner (precursor). In accordance with the predictions of Brillouin and Sommerfeld, the forerunners are not affected by dispersion; it is shown, e.g., that they can possess a richer spectral content than the main delayed pulse, and their polarization must not necessarily fit the polarization eigenmode of the crystal with a space-charge grating.