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## **NON-LINEAR EFFECTS IN OPTICAL FIBERS**

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**N**on-linear effects in optical fibers impose different limitations on the communications link, and an understanding of such effects is almost a pre-requisite for actual light wave-system designers. On the other hand, they offer a variety of possibilities for all-optical signal processing, amplification and regeneration. The non-linear effects are enhanced dramatically and new phenomena are observed in the so called highly nonlinear optical fibers, such as the photonic crystal fibers. In this talk author reviews the effects both detrimental and potentially beneficial of optical nonlinearities in conventional and in highly non-linear optical fibers.