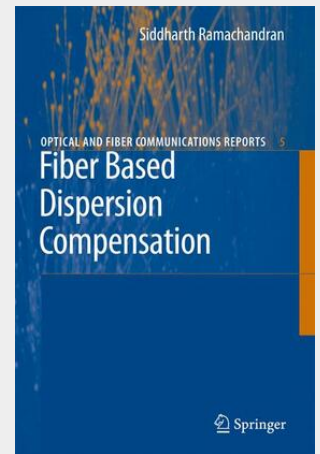


## Fiber Based Dispersion Compensation

A pulse of light spreads in time as it propagates in a fiber due to the physical phenomenon called dispersion. While dispersion can be deleterious in optical communications systems, it can also be exploited to manage the temporal and spectral shapes of pulses and their interactions with other pulses. Much of dispersion control is realized in optical communications systems with discrete devices – the so-called dispersion compensators, and almost all commercially deployed dispersion compensators today are based on specially designed fibers. This book addresses various aspects of this device technology, such as the physics of optical dispersive effects, the design philosophy and properties of devices deployed in optical networks today, futuristic devices utilizing novel fibers, and their systems level impact. Written by leaders in the field drawn from both academia and industry, this book serves as a comprehensive introduction to the topic of dispersion management of light for graduate students and applications engineers. Since each chapter provides a detailed description of the state-of-the-art in each technological platform, this book also serves as a practical reference for industry experts tasked with designing next generation optical networks.

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