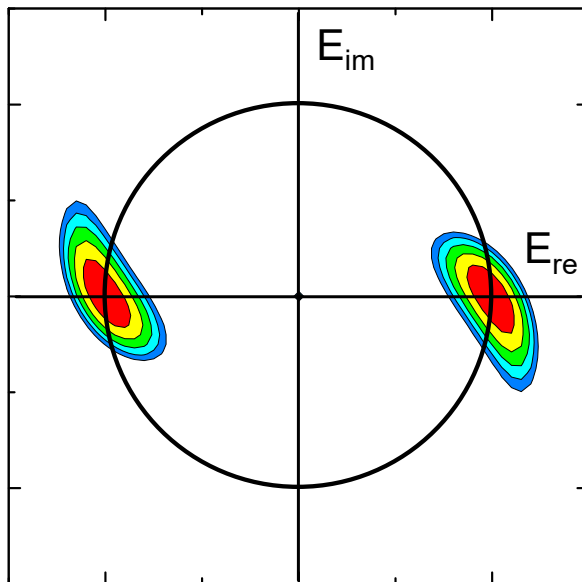


OSE 6143

Fiber-Optic Communication



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A system-oriented course that emphasizes end-to-end performance

Topics

- **Part I: Introduction: Where optical communication fits in networks**
- **Part II-1: Loss-Limited Optical Transmission**
 - Sensitivity Limits for Direct Detection
 - Optical Amplifiers
 - Sensitivity Limits for Preamplified Direct Detection
- **Part II-2: Dispersion-Limited Optical Transmission**
 - Dispersion Penalties
 - Dispersion Compensation
- **Part II-3: Advanced Modulation Formats**
 - Differential Detection
 - Coherent Detection
- **Part II-4: Long-Haul Optical Transmission**
 - Linear Noise Limit
 - Nonlinearity Limit
- **Part III: Multi-Channel Transmission (WDM)**
 - Components for WDM
 - Nonlinearities in WDM Transmission
- **Part IV: Advanced Topics (2 topics)**
 - Polarization Mode Dispersion
 - Wavelength λ -Conversion
 - Optical Regeneration
 - Digital Coherent Transmission
 - Space-Division Multiplexing
 - Analog Links