APPENTIX-2
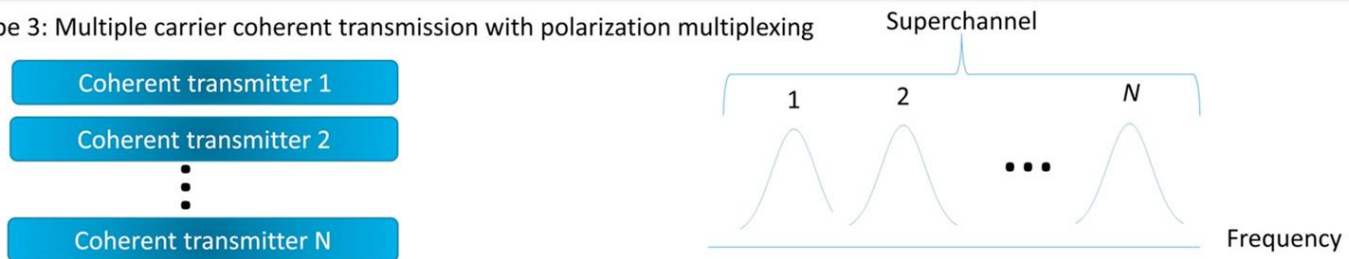# Optical Transmission Techniques for Layer 4 Networks
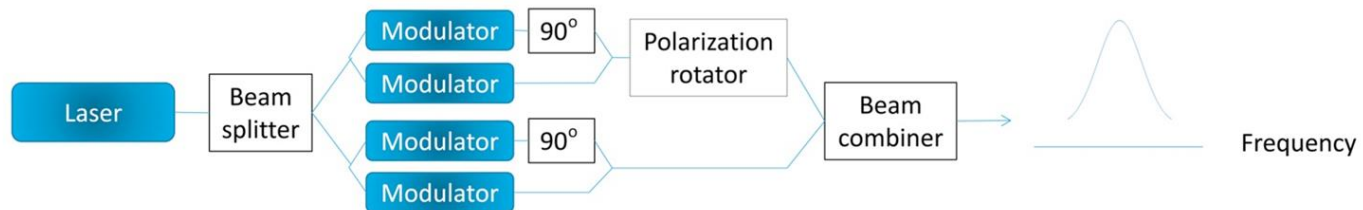
Figure A2.1: The three types of optical channel based on modulation and multiplexing.
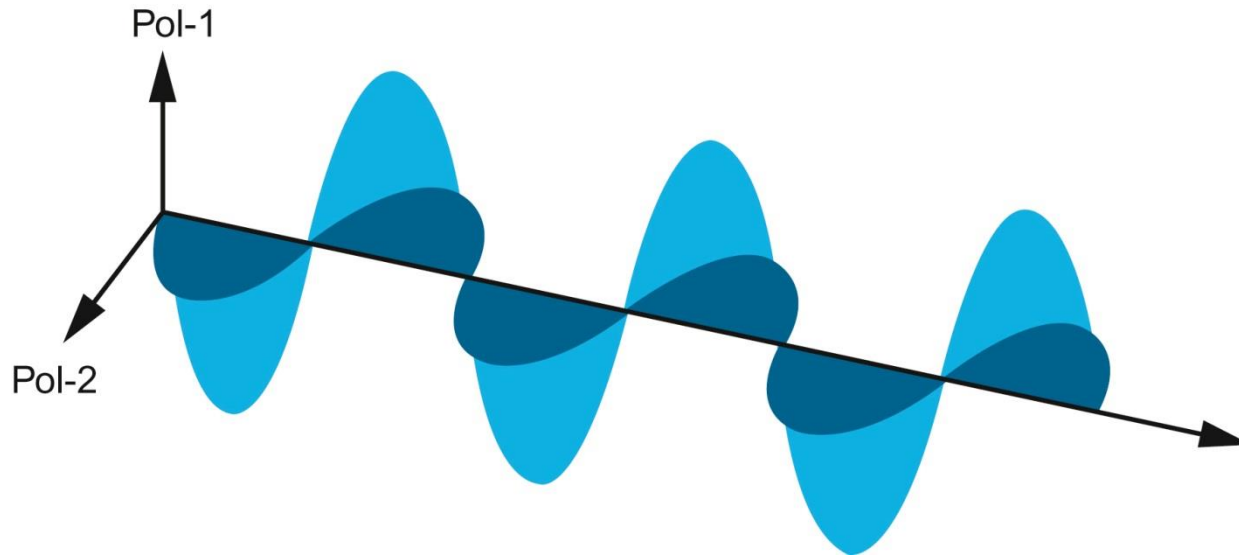
Figure A2.2: Two polarization states of light.
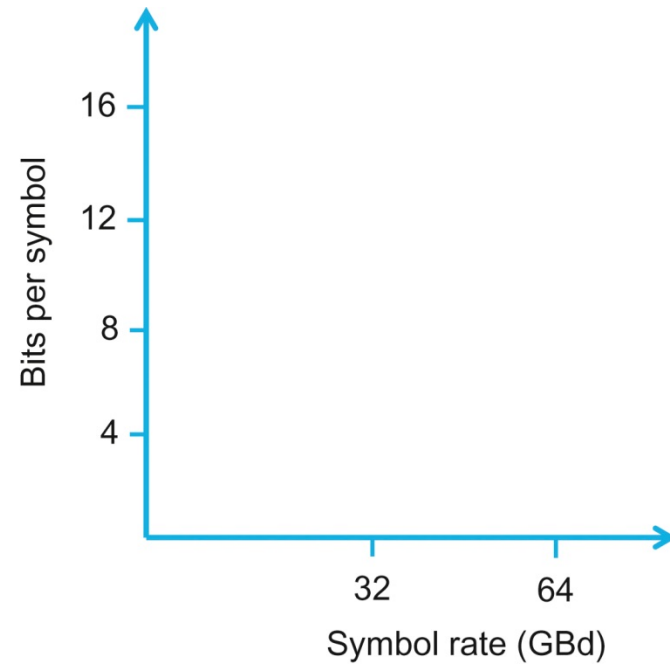
Figure A2.3: Two levers used to boost capacity: bits per symbol and symbol rate.
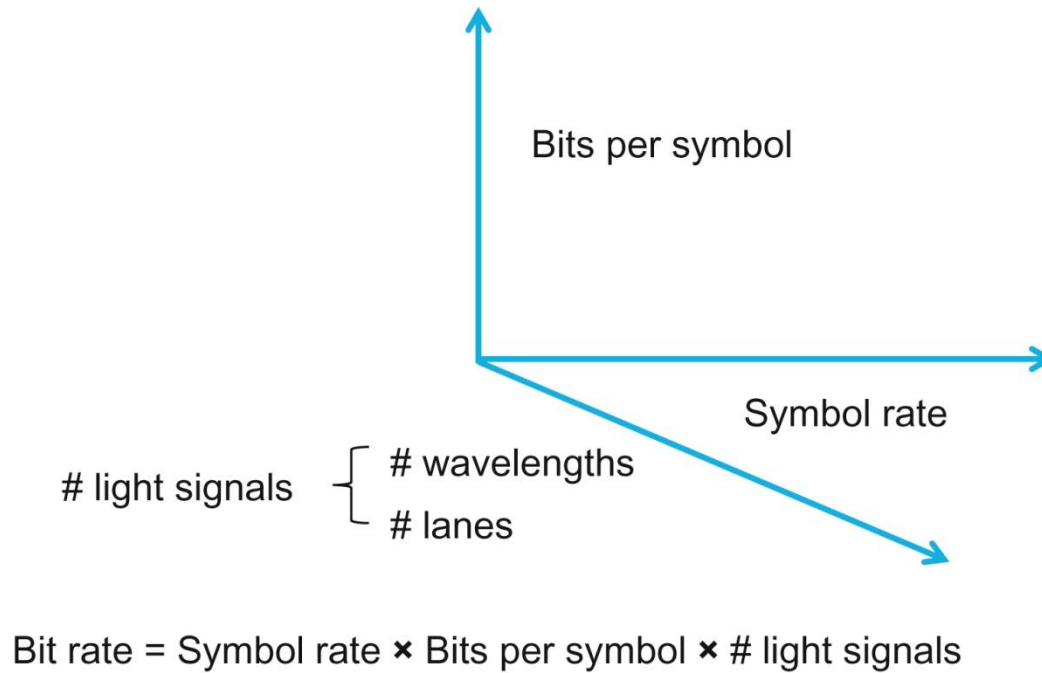
Figure A2.4: Three levers used to boost capacity: bits per symbols, symbol rate, and # light signals.

	Wavelengths		Bits per symbol		Symbol rate (GBd)	Bitrate (Gbps)
A. PM-QPSK	1	×	4	×	25	100
B. PM-8QAM	1	×	6	×	25	150
C. PM-16QAM	1	×	8	×	25	200
D. PM-64QAM	1	×	12	×	33.3	400
E. PM-16QAM	2	×	8	×	25	400

Figure A2.5: The knobs available to effect different data rates, distances, and spectral efficiencies.