Multicanonical Modeling of Commercial WDM Optical Communication Systems[1] DAVID YEVICK, GEORGE SOLIMAN, University of Waterloo — The multicanonical method has been extensively applied to optical and more recently wireless communication systems. Here we outline our recent work on the simulation of electronically compensated polarization multiplexed wavelength-division-multiplexed quadrature phase shift keyed optical communication systems influenced by polarization mode dispersion and fiber nonlinearites. This constitutes to our knowledge the first complete multicanonical analysis of a realistic commercial system.

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