Complexity of Quantum Spectra

YURI DABAGHIAN, University of California San Francisco — It has been long recognized that the problem of semi-classical evaluation of quantum spectra is fundamentally more difficult for classically chaotic systems than for the classically integrable ones. It appears now that the quantum spectra of the chaotic systems may also differ among themselves by level of their complexity. This is indicated by the hierarchy of the explicit spectral solutions for 1D quantum networks.