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**Tests of Localization in Metals and Semiconductors<sup>1</sup>**

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The metal-Insulator transition has been a subject of study for decades. It is now well known that entering the critical region of the transition the characteristics of a highly correlated system dominate. The dimensionality of the system is also very important. In this talk I will reminisce about the concepts and experiments to test models, explore systems, and investigate the role of dimensionality. Mott's concept of a minimum metallic conductivity drove my own thinking until the landmark paper of Abrahams, Anderson, Licciardello and Ramankrishnan. A series of careful experiments testing the notions of weak localization followed this paper and provided critical tests of the concept. I will describe some of those experiments and the things we learned from this work.

<sup>1</sup>Work was performed while the author was at Bell Laboratories