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Why did it take over 40 years from the experimental discovery of superconductivity to the BCS theory and will it take this long to understand the high Tc superconductors? DOUGLAS SCALAPINO, University of California, Santa Barbara

This year marks the 60th anniversary of the publication of the BCS theory of superconductivity. One of the seminal theories of the past century, the BCS theory followed 46 years after the discovery of superconductivity by Kamerlingh Onnes. This year also marks 31 years since Bednorz's and Muller's discovery of the high Tc cuprates. In this talk I've been asked to discuss why it took 46 years between Onnes's discovery of superconductivity and the BCS explanation and comment on where we are after 31 years with respect understanding the high Tc cuprates.