## The History of SQUIDs

A. Silver

Retired TRW Technical Fellow, USA

Abstract— The SQUID in its various forms has been a mainstay in many application arenas for more than 50 years. This presentation will concentrate on the unique discovery and development of SQUIDs at the Ford Motor Company in the 1960's from a first-person perspective. The presentation will include: Discussion of critical prior developments that led to the first realization of macroscopic quantum interference in superconductors; Experiments leading to the development of dc, rf, and resistive SQUIDs; Experimental technologies available at that time (in contrast to today); Innovative improvement and expansion of SQUID technology since the 1960's.

*Keywords (Index Terms)* — History, macroscopic quantum interference, dc-SQUIDs, rf-SQUIDs, resistive SQUIDs.

IEEE-CSC & ESAS SUPERCONDUCTIVITY NEWS FORUM (global edition), September 2019.
Selected August 5, 2019. Reference RP93; distinguished presentation 1-SQ-D-1 given at ISEC, 28 July-1 August 2019, Riverside, USA.