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Award of the International Reliability Physics Symposium to Alfred L. Tamburrino

28 March, 1990, New Orleans, Louisiana



Walter Schroen (left) presented the award to Al Tamburrino (right)

Laudation

For only the fifth time in its 28 year history, the International Reliability Physics Symposium has elected an outstanding researcher to receive its Award. Mr. Alfred L. Tamburrino has been cited for his superb "Leadership in Reliability Physics and his numerous contributions to electronics reliability."

Mr. Tamburrino, Assistant Division Chief of the Microelectronics Division, Reliability and Compatibility Directorate, RADC, was a cofounder in 1962 of the IRPS, then known as the Physics of Failure in Electronics Symposium. At the 1963 Symposium, he discussed the "Analysis of Requirements in Reliability Physics," (Proceedings Vol.2, pp. 1-24) — certainly advanced thinking for the year 1962! Several other "firsts" followed, several of them documented in the IRPS proceedings. In 1970, Mr. Tamburrino coauthored a comprehensive overview of plastic reliability at IRPS in a paper titled "Can Plastic Encapsulated Microcircuits Provide Reliability with Economy?" (The answer was "no".)

As a matter of fact, Mr. Tamburrino was a trailblazer already at the time of his Master thesis in Physics (from the University of Pittsburg in 1961); the topic "Measurement of Circular Polarization of Gammas from the Beta Decay of Co-60" was one of the early experiments showing nonconservation of parity in weak interactions.

At RADC, Mr. Tamburrino dedicated his profound knowledge and rich experience to deeper understanding of failure mechanisms in silicon and GaAs devices, including electromigration, hot-carrier effects, electrical test and characterization, VHSIC reliability and VHSIC testing, design rules for reliability, and failure analysis techniques.

At the Reliability Physics Symposium, Mr. Tamburrino served as Secretary, Technical Program Chair, General Chair (1977), and member of the Board of Directors. Among his numerous functions were positions with the International Symposium on Testing and Failure Analysis, Electronic Components Conference, and Government Microcircuit Applications Conference.

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