High-performance Josephson junctions for ferrotransmons

Carmine ATTANASIO - *University of Salerno*

The transmon, key element in quantum computers, includes two S/I/S Josephson junctions (JJs) forming a DC-SQUID. The ferrotransmon (FT) innovatively substitutes one S/I/S JJ with an S/F/S JJ (F=ferromagnet). This project aims at realizing optimized S/F bilayers to be integrated with S/I/S JJs, sourced from an NQSTI partner, to enhance the FT's performances.