

Melanie Berg received her MS degree in Electrical Engineering from the University of Pittsburgh in 1990. Since 1988, she has been a designer, verification engineer, instructor, and reviewer, for a variety of high-speed multi-million gate ASIC and FPGA development teams. One of her more visible accomplishments was her role as a designer and verification engineer in the NASA sponsored New Horizons and Pluto Mission.

Ms. Berg is currently a member of the Radiation Effects and Analysis group at NASA Goddard Space Flight Center (GSFC). NASA GSFC responsibilities include developing flight designs, performing design reviews, investigating FPGA/ASIC mitigation strategies for critical missions, and providing single event upset (SEU) mission reliability predictions. Regarding Security and Trust, Ms. Berg has been selected as a member of the Defense Production Act Title III effort and has participated in Joint Federated Assurance Center (JFAC) planning sessions.

Ms. Berg has published and presented several papers concerning such topics as: Reliable Synchronous Design Methodology, Robust Verification Techniques, Mitigation Strategies for Critical Circuitry, Survivability Predictions, Hardness Assurance for Space Flight Systems, and ASIC/FPGA Trust/Security Schemes.