Distinguished paper award conferred to paper on software fuzzing

The paper "SoK: Prudent Evaluation Practices for Fuzzing" which includes contributions on resampling methods in statistics by Nicolai Bissantz from the statistics section of the department of mathematics at the Ruhr-University has been given a distinguished paper award at the IEEE Symposium on Security and Privacy (San Francisco, 2024, May 20th-23rd).

Software fuzzing, or fuzz testing, is a dynamic testing method for the detection of faults in software systems, where the idea is to find new and so far unknown bugs in software in such a way that not only previously known or suspected sources of faults in the system are tested. Finding such bugs can be of tremendous importance for internet security if bugs are found and fixed before being misused by state-run or commercially oriented third parties for attacks on software systems. The method is based on evaluating the behaviour of the system for some initial input, where the testing process includes randomness, where the sources for the randomness include input, scheduling order of the process, etc.

The full reference of the paper is Schloegel, M., Bars, N., Schiller, N., Bernhard, L., Scharnowski, T., Crump, A., Ebrahim, A.A., Bissantz, N., Muench, M. and Holz, T, "SoK: Prudent Evaluation Practices for Fuzzing", IEEE Symposium on Security and Privacy (S&P), 2024. Most authors of the paper are at the CISPA Helmholtz Center for Information Security, except for Marius Muench (University of Birmingham) and Nicolai Bissantz (Ruhr-University Bochum).