

PEER Two-Page Summary

Title: The 21st Working Conference of the IFIP Working Group 7.5 on Reliability and Optimization of Structural Systems (IFIP WG7.5 2024)

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These are the proceedings of the twenty-first working conference of the International Federation of Information Processing (IFIP) Working Group 7.5 on Reliability and Optimization of Structural Systems, which took place at the University of California, Berkeley, USA, on August 19–21, 2024. This volume contains 15 selected papers from the 20 presentations delivered at the conference.

The conference was supported by Pacific Earthquake Engineering Research (PEER) Center, and by the University of California, Berkeley, which provided outstanding facilities in the conference venue and remarkable logistic support throughout the event.

The purpose of the WG7.5 Working Group is to promote modern theories and methods of structural and system reliability and optimization, to stimulate research, development, and applications in these areas, to foster the dissemination and exchange of information, and to encourage education on those subjects.

The main themes of the conference included structural reliability methods, engineering risk and resilience analysis, Bayesian methods, reliability-based design optimization, and sensitivity analysis, along with their applications in civil engineering, dynamics, and natural hazards. The conference facilitated engaging discussions among participants, both during and after the technical sessions. Notably, a significant number of presentations were delivered by promising young researchers, who contributed fresh perspectives and innovative ideas to the field.

We are grateful to all the participants for their valuable contributions and active engagement, which made the conference a successful and memorable event. We also extend our thanks to the organizing committee, the scientific committee, and all those who contributed to the smooth execution of the conference.

We look forward to future IFIP WG7.5 conferences and continued collaboration in advancing the field of structural reliability and optimization.



Participants of the 21st IFIP WG7.5 Conference at UC Berkeley, USA.