

Flying High with Math

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Abstract: Sharon and Shabnam are members of Boeing Research & Technology. They partner with business units to develop operations research-based solutions and mathematical tools that help Boeing reduce costs, improve products and operations. They have developed operations research and math solutions as well as simulation models for applications across Boeing including supply chain, aircraft delivery, airline scheduling, wind tunnel testing, robot scheduling, logistics, communication networks, sensor fusion, rate analysis, and facility layout design. In this presentation, Sharon and Shabnam will give an overview of some of the projects on which they have worked and will give insights into what it is like to work as a mathematician in industry.

Bio: Sharon Arroyo

Sharon is a Technical Fellow in the Applied Mathematics Group at Boeing and the technical lead for operations research. She partners with business units to develop operations research-based solutions and mathematical tools that help Boeing reduce costs, improve products and operations. She has developed operations research and math solutions for applications across Boeing including supply chain, airline scheduling, wind tunnel testing, aircraft delivery, robot scheduling, logistics, communication networks, and sensor fusion and scheduling. Prior to joining Boeing, she was an Assistant Professor at Iowa State University. She received her B.S. in Mathematics from Stanford University and her M.S. and Ph.D. in Operations Research from Cornell University.

Bio: Shabnam Khamooshi

Shabnam joined the Boeing Company in 2013 after finishing her post doctorate fellowship at the University of Washington. Her work was mainly focused on optimization and operations research projects including transportation and logistics optimization as well as layout planning optimization and simulation. She received her PhD from University of Houston and her dissertation was on optimizing the transportation system for hurricane evacuation (research funded by the Department of Homeland Security). Currently, she works in the BR&T Production Analytics team on a variety of projects including airplane delivery schedule optimization, airplane stall allocation optimization and production scheduling. Her main area of interest is applying operations research, mathematical modeling, and statistical analysis in all areas of airplane life cycle.