Abstract:
The talk will provide an overview of complex networked systems including quantifying, managing, and designing heterogeneous networked systems. Methods of measuring and assessing the performance of networked systems will be discussed including techniques of sparse approximation in network measurements, and algebraic, and topological statistical metrics for performance. Strategies of quantifying risk over different geometric and statistical classes of networks will be examined as well as methods of tracking and coding dynamic network flows.

Bio:
Dr. Bonneau is Program Manager of the Air Force Office of Scientific Research, and has established programs for Networking and Communications in the Mathematics, Information, and Biological Sciences Division. Previously, Dr. Bonneau was a senior research scientist at the Air Force Research Laboratory, Information Directorate in networking, communications, sensing, and computing, a Program Manager at the Defense Advanced Research Projects Agency (DARPA) in communications. He has held academic positions in communications and sensing at Rensselaer Polytechnic Institute and Columbia University. Dr Bonneau has a Ph.D. in electrical engineering from Columbia University, and a Masters and Bachelors in electrical engineering from Cornell University. Dr. Bonneau is a senior member of the IEEE and has over 75 journal and conference papers, 1 book co-authorship, contributed to 2 book chapters, and holds 3 patents.