

Roch Guérin received an engineer degree from ENST, Paris, France, in 1983, and M.S. and Ph.D. degrees in Electrical Engineering from Caltech in 1984 and 1986, respectively.

He joined the Electrical and System Engineering department of the University of Pennsylvania (Penn) in 1998 as the Alfred Fittler Moore Professor of Telecommunications Networks. Before joining Penn, he spent twelve years at the IBM T. J. Watson Research Center in a variety of technical and management positions. From 2001 to 2004 he was on partial leave from Penn, starting Iptivia Networks (now Iptivia), a company that pioneered route analytics for managing IP networks. Iptivia's software is currently deployed in several large Internet Service Providers.

While at IBM, he was involved in several projects targeting the deployment of QoS capabilities in IBM products. In particular, his work on "equivalent bandwidth" served as the basis of the traffic management capabilities of IBM's NWay product line of high-speed switches. His 1991 JSAC paper describing the approach was named one of the ten most recommended papers to read from the field of networking in the January 2006 issue of the ACM Computer Communication Review. He was also a core member of the IBM team involved in the NSF/DARPA AURORA project that was the first to demonstrate packet-switching at Gigabit speeds and the feasibility of remote collaboration using high-definition graphic and video.

Since joining Penn in 1998, Dr. Guérin has graduated six Ph.D. students and supervised several MS theses. His research has focused on network robustness and on assessing how network performance affects application quality. He has investigated routing and traffic engineering solutions that are robust across a broad range of operating conditions, i.e., remain near-optimal in the presence of failures or traffic surges, and has developed light-weight techniques for real-time monitoring of video quality, something of critical importance to large-scale IPTV deployments.

Dr. Guérin has published over 200 papers in international journals and conferences, holds approximately 30 patents, and has been active in standard organizations such as the IETF. Since July 2009, Dr. Guérin serves as the Editor-in-Chief for the IEEE/ACM Transactions on Networking, the premier archival journal in the field of networks and distributed systems. He was editor of the ACM SIGCOMM technical newsletter, CCR, from 1998 to 2001, and returned to CCR as an area editor in 2005 and 2006. He also held editorial positions with the Journal of Computer Networks, the IEEE Communications Surveys, the IEEE/ACM Transactions on Networking, the IEEE Transactions on Communications, and the IEEE Communications Magazine, and was a guest editor of a JSAC issue on Internet QoS published in December 2000. He chaired the IEEE Technical Committee on Computer Communications from 1997 to 1999, and was as member-at-large of the Board-of-Governors of the IEEE Communications Society from 2000 to 2002. He was General Chair of the IEEE INFOCOM'98 conference, Technical Program co-Chair of the ACM SIGCOMM'2001 conference, General Chair of the ACM SIGCOMM'2005 conference, and Technical Program co-Chair of the ACM CoNEXT 2007 conference. He serves and has served on numerous Technical Program Committees.

Dr. Guérin is an ACM and IEEE Fellow, and in 1994 received an IBM Outstanding Innovation Award for his work on traffic management. He served two consecutive terms on the Technical Advisory Board of France Telecom from 2001 to 2006, and was on the Technical Advisory Board of Samsung Electronics in 2003-2004. Dr. Guérin has consulted for many companies in the networking area and served as expert witness in several patent litigations involving networking and communication technologies.

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