

**Charles Poynton**  
156 Bartlett Avenue  
Toronto, ON M6H 3G1  
CANADA  
tel +1 416 535 7187  
charles@poynton.com  
www.poynton.com

## Charles Poynton – Biography

Charles Poynton is an independent research and development scientist specializing in the physics, mathematics, and engineering of digital colour imaging systems, including digital video, HD, and digital cinema (D-cinema). He does technology assessment and forecasting, systems modelling, algorithm development, video signal processing architecture, colour characterization and calibration, and image quality assessment. In addition to his professional activities, he is enrolled in the Ph.D. program at Simon Fraser University, where he is engaged in research concerning colour image acquisition and presentation.

Mr. Poynton graduated from Queen's University in Kingston, Ontario, with a B.A. in Mathematics and Computer Science. Later, he studied at the Ontario College of Art in Toronto. He was invited to become a faculty member at OCA (now OCADU); for 2 years, he taught electronics to art students. From 1981 to 1985, Mr. Poynton designed and built the digital video equipment used at NASA's Johnson Space Center to convert video from the Space Shuttle into NTSC for recording and distribution. At Sun Microsystems in Mountain View, California, from 1988 to 1995, he initiated Sun's HDTV research project, and introduced colour management technology to Sun.

Mr. Poynton is a Fellow of the Society of Motion Picture and Television Engineers (SMPTE), and an Honourary Fellow of the BKSTS. He has participated in several standards developments in digital video and HD; he was responsible for the introduction of "square pixels" into HD standards, and is the originator of the number 1080 in the now-commonplace designation 1080*p*60 for HD and the 2048×1080 ("2K") standard for today's digital cinema. He was awarded SMPTE's prestigious David Sarnoff Gold Medal for his work to integrate video technology with computing and communications.

Mr. Poynton has published several journal articles, and published and presented many technical papers. He has organized and presented many popular courses and seminars, including courses on colour technology, HDTV, and digital cinema at SIGGRAPH. He has presented seminars and workshops at many other conferences, including conferences held by organizations such as BKSTS, GSTA, HPA, IS&T, SID, and SMPTE.

He holds a U.S. patent. He served as an expert witness in several patent disputes, and has experience in patent evaluation.

His first book, *A Technical Introduction to Digital Video*, was published in 1996 by John Wiley & Sons, and reached fifth printing. His book *Digital Video and HDTV Algorithms and Interfaces* was published in 2003 by Morgan-Kaufmann; shortly after its publication it was the 3,339<sup>th</sup> most popular item at Amazon.com. That book is now in its sixth printing; a second edition will be published in 2012.

Charles lives in Toronto with his wife Barbara, a psychotherapist. ■■■