

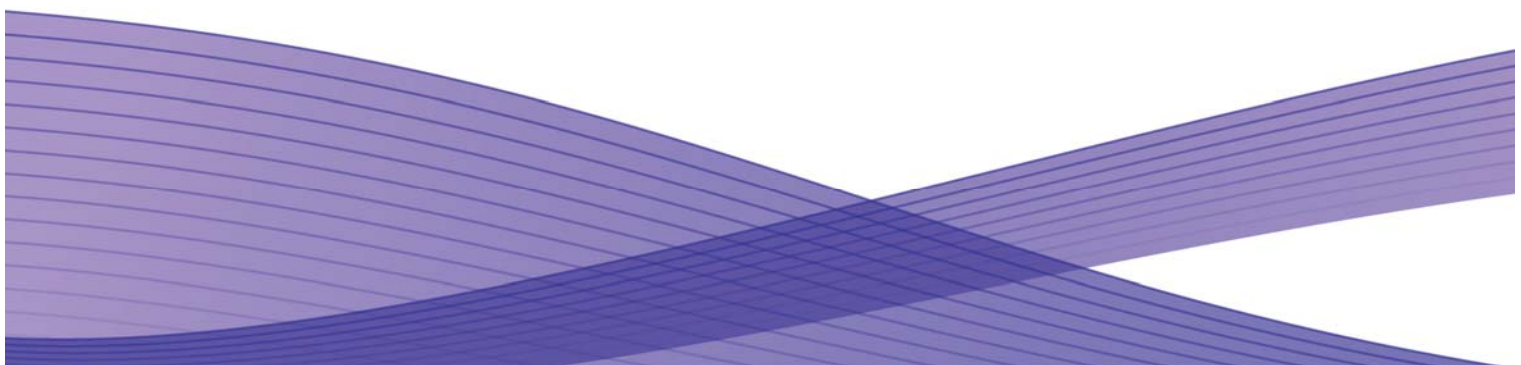
# CHRISTOPHER DANCE

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Christopher joined XRCE in 1997, where he conducted research and technology transfer relating to mobile imaging, character recognition, user interfaces and heavy-tailed statistical processes. From 2002-05 he set up XRCE's textual and visual pattern analysis (TVPA) research area and coordinated the EU project "Learning for Adaptable Visual Assistants" (LAVA). Through this project he proposed and investigated the "bag-of-visual words" model for visual categorization, which has subsequently become of major importance in computer vision research. This technique has subsequently found applications as diverse as automatic image enhancement, document recognition, advertising, security and print controls.



Christopher was XRCE's Laboratory Manager from 2004-09, during which time he set up XRCE's machine learning for optimization and services (MLOS) research group. More recently his research interests have included coupling machine learning with stochastic optimization and game theoretic methods for services and supply chains. His recent  $(\Omega, S)$  policy for the stochastic joint replenishment problem is the first that guarantees performance that is close to optimal.





Christopher received a BA (Physics and Theoretical Physics) and PhD (Information Engineering) from Cambridge University, England, where he worked on machine learning techniques for classifying quark jets and medical diagnosis, as well as geometrical techniques for reconstructing 3D models from multi-axial cross-sections. He has published over 30 refereed academic papers and has been granted over 20 patents.



