Working Group on Statistical Learning Seminar

John Healy (University College Dublin)

will speak on

Machine learning for image reconstruction: fad or revolution?

Mon 25th November 2019 at 12:00PM

Location: Seminar Room SCN 1.25

Mathematical models of optical systems don't end with Maxwell's equations. A rich field of approximations has lead to an arsenal of models of light propagation that have inspired generations of optical engineers to design novel microscopy techniques. Technical advances in digital cameras and spatial light modulators have allowed for new architectures, many of which are truly hybrid optical/numerical imaging systems – image formation takes place numerically. That's opened up huge possibilities in terms of image storage, transmission, enhancement, and interpretation. In the past few years, researchers have begun to apply deep learning networks to image reconstruction. Can machine learning techniques displace physics-based reconstruction algorithms?

This talk is part of the **Working Group on Statistical Learning** series. For more, see
https://maths.ucd.ie/seminars