

# Optical Computing: Principles, Examples, and Prospects

P McMAHON<sup>1</sup>

<sup>1</sup>*Cornell University, Ithaca NY, USA*

Contact Email: [pmcmahon@cornell.edu](mailto:pmcmahon@cornell.edu)

In this talk I will discuss how optics could in principle be used to perform some computations faster or more energy efficiently than is possible with electronics, as well as the caveats and challenges. To illustrate the principles, I will highlight various examples of theoretical proposals and experimental demonstrations from our community, showing how they aim to gain an advantage over electronics.