
Energy sensitive detectors for wavefront sensing

Kieran O'brien*¹

¹Durham University – United Kingdom

Abstract

I will present an overview of energy-sensitive detectors and focus on Kinetic Inductance Detectors (KIDs) as a breakthrough technology for making large arrays of energy sensitive pixels. These detectors measure the arrival time (to a microsecond) and energy (to a few percent) of individual photons. They are capable of operating over a wide bandpass in the optical and near-IR and are read-noise free. I will introduce the operating principle, but will focus on the properties of the devices that make them a potentially exciting new direction for wavefront sensing.

*Speaker