

Precise, Reliable Photometry

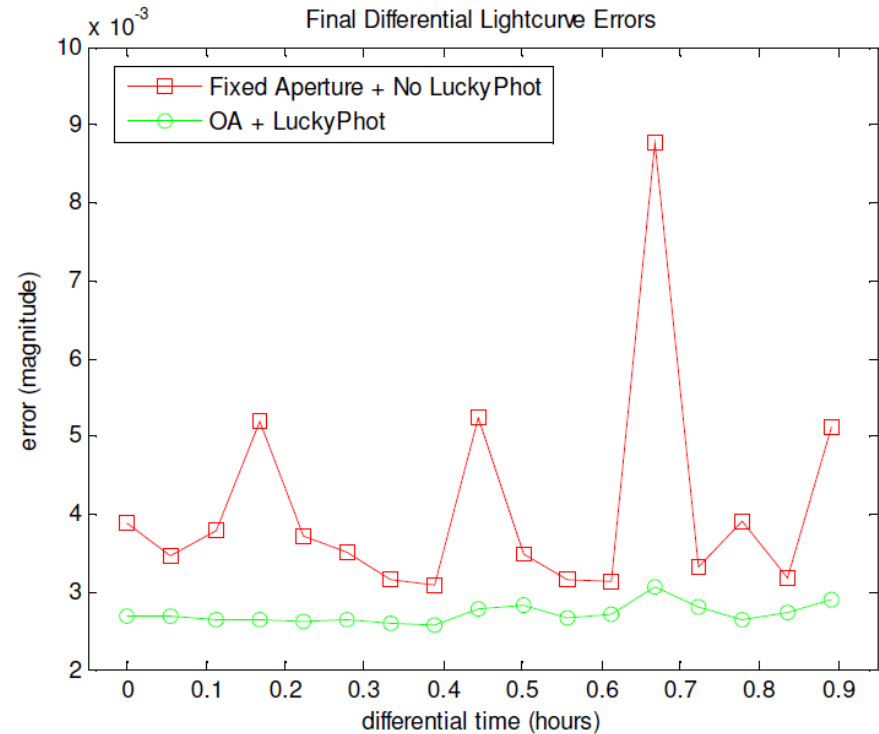
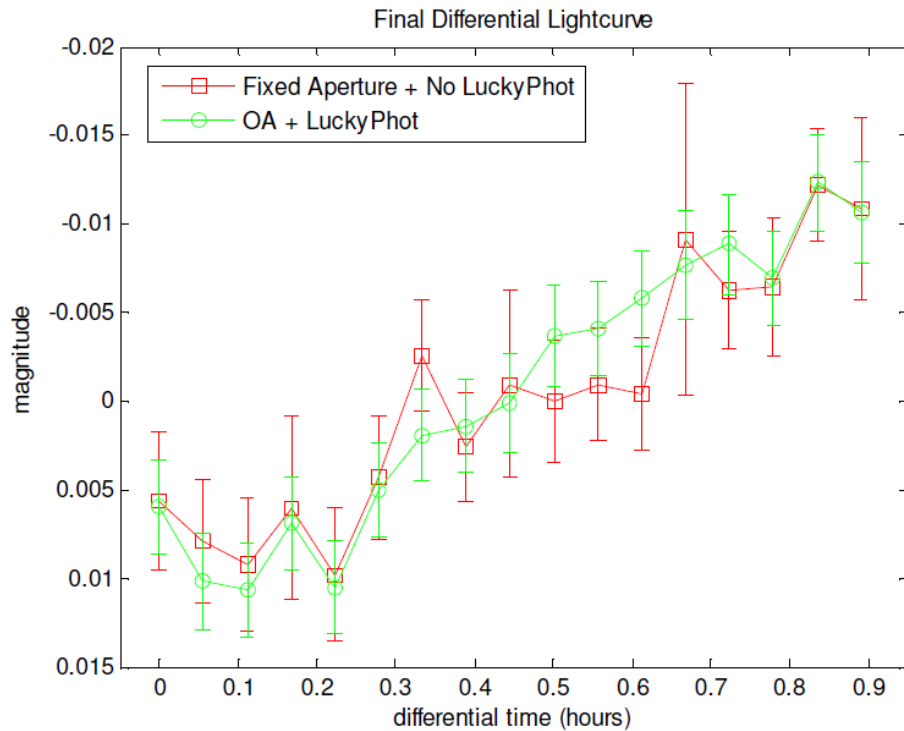
Astronomical Instrument Development, Dublin Workshop

September 2nd and 3rd 2019

Niall Smith on behalf of BCO
team



Fast Photometry selects the best atmospheric conditions



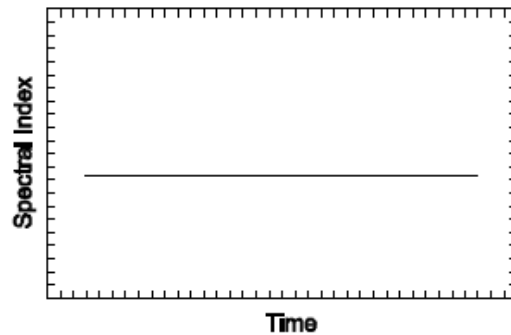
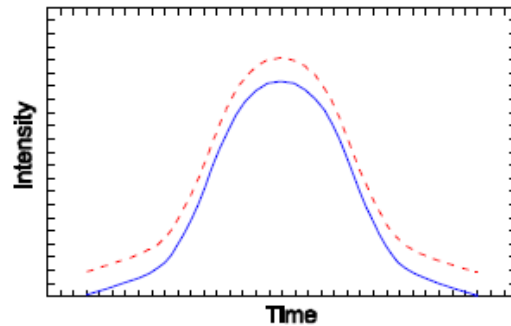
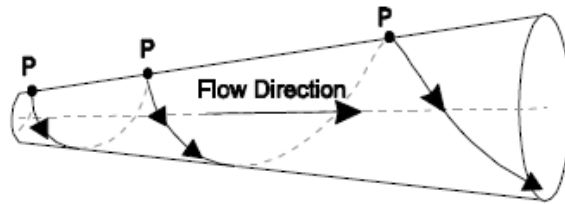
Using EMCCD's to improve the photometric precision of ground-based astronomical observations, Giltinan, A., Loughnan, D., Collins, A., Smith, N. Journal of Physics: Conference Series, 307 (1), art. no. 012010, 2011

A. Collins, PhD Thesis, 2015

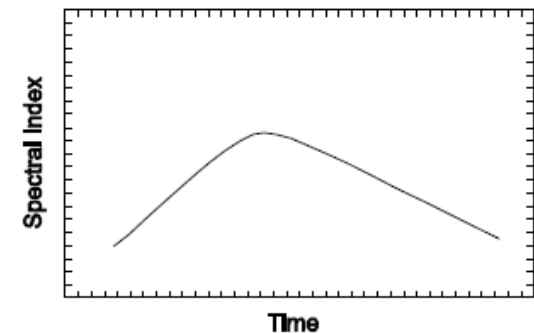
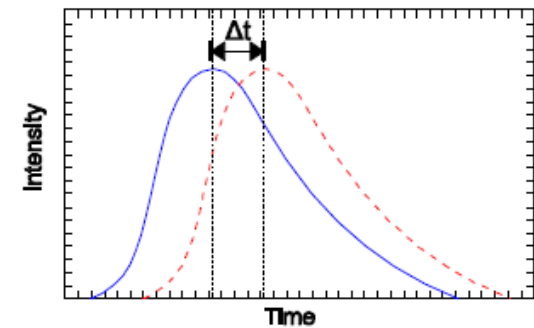
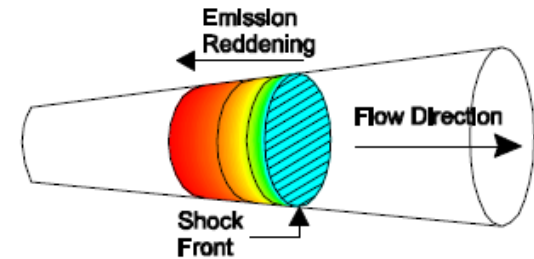
Multicolour Photometry enables Tests of Competing Models



Geometric Model

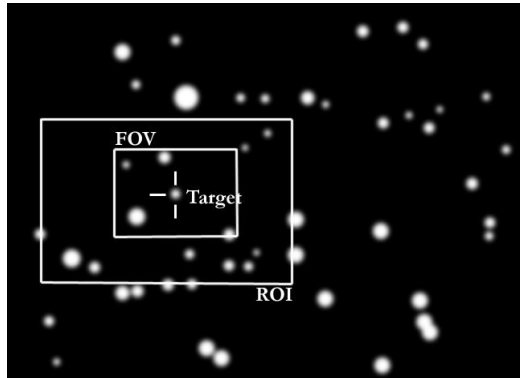


Shock in Jet Model

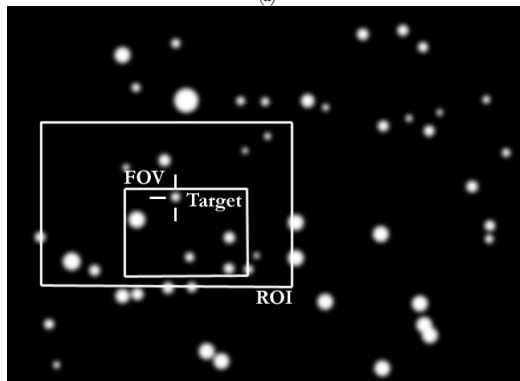


Large area imagers facilitate optimised photometry

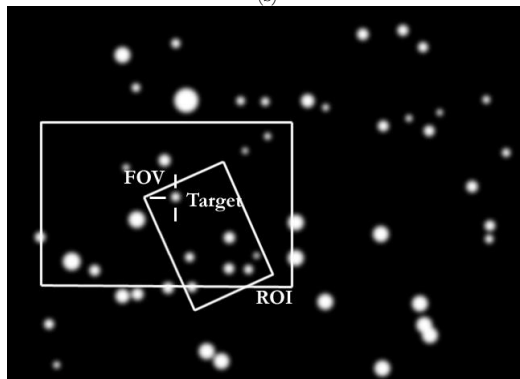
Concept
(Smith, O'Driscoll,
Giltinan)



(a)

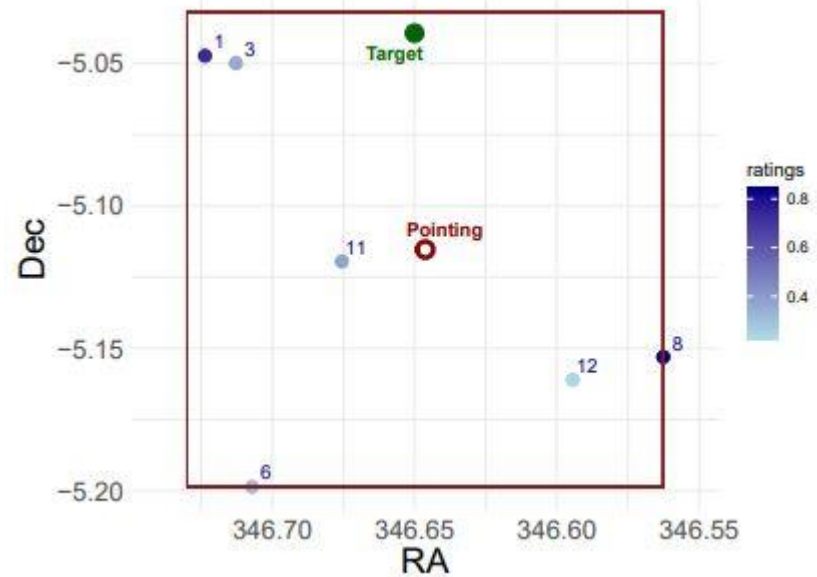


(b)



(c)

Example using a Locus Algorithm (Creaner)



Creaner, Hickey, Nolan, Smith, in prep.

Two/more colour, fast, wide imager

