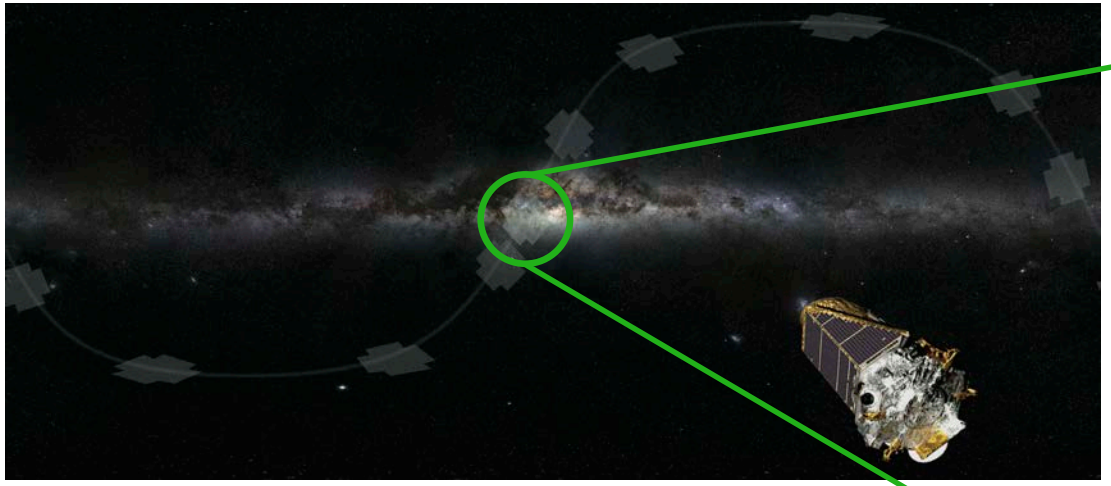
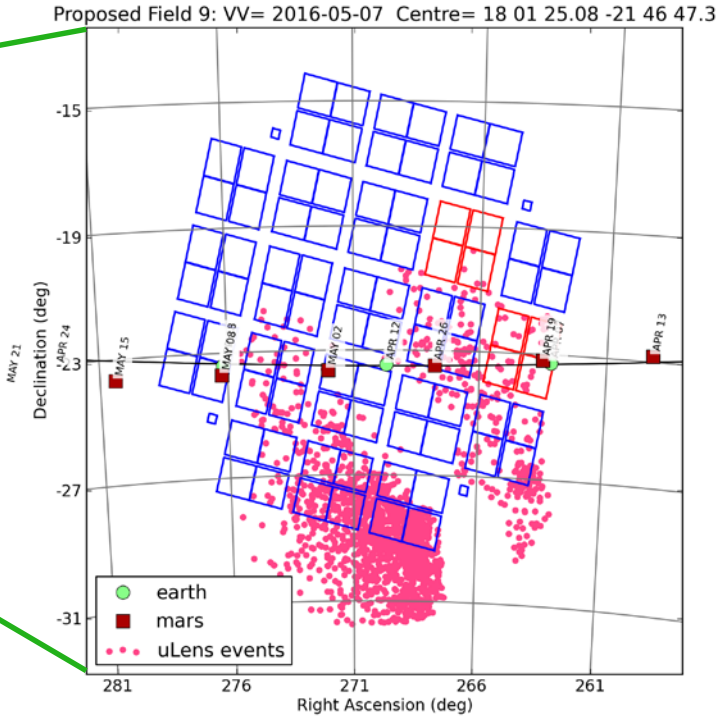
Finding Free-floating Planets with *K2*!





Calen B. Henderson (JPL/Caltech)

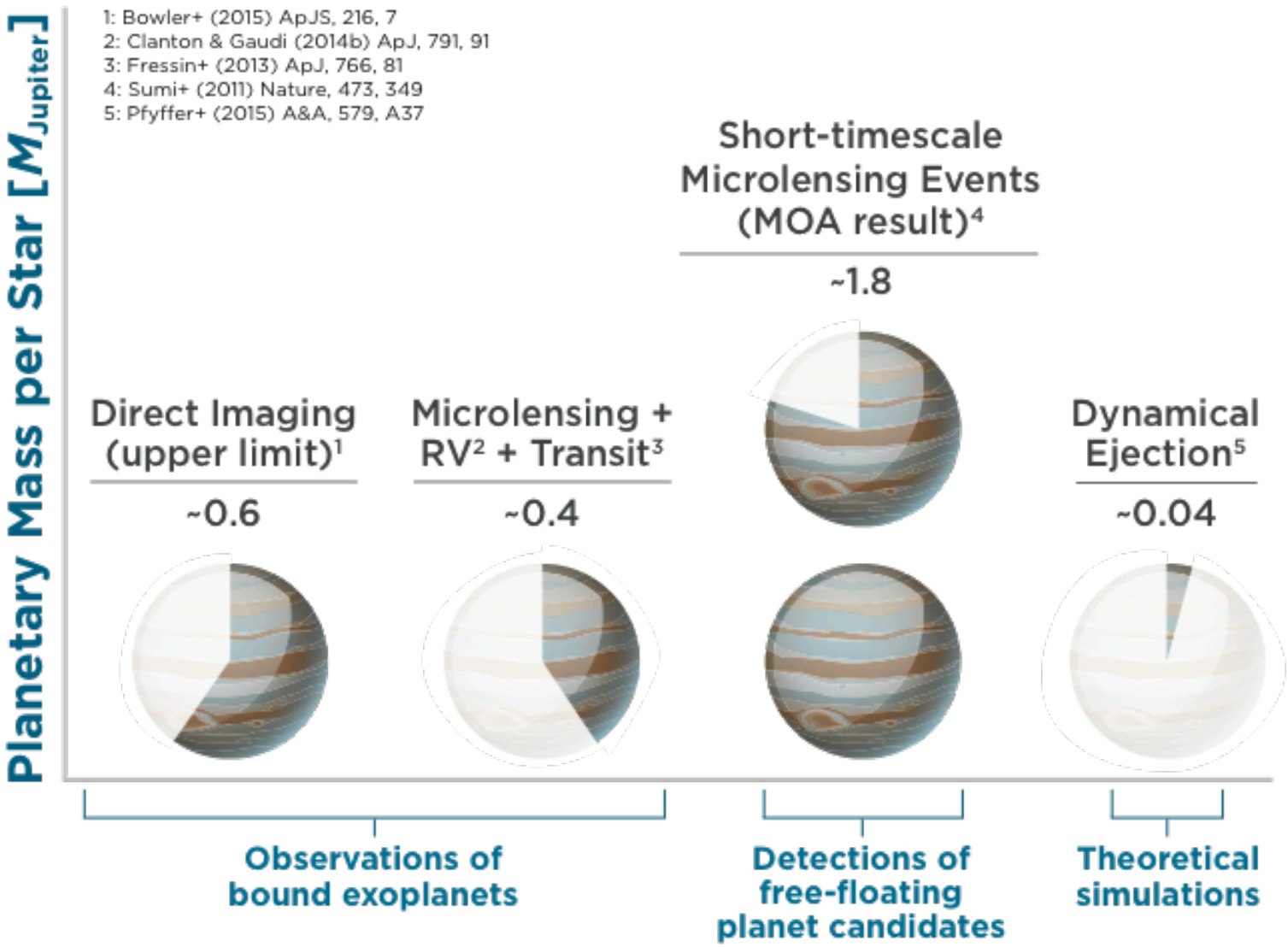
*K2*C9 Microlensing Science Team Member

NASAdena Postdoc Retreat

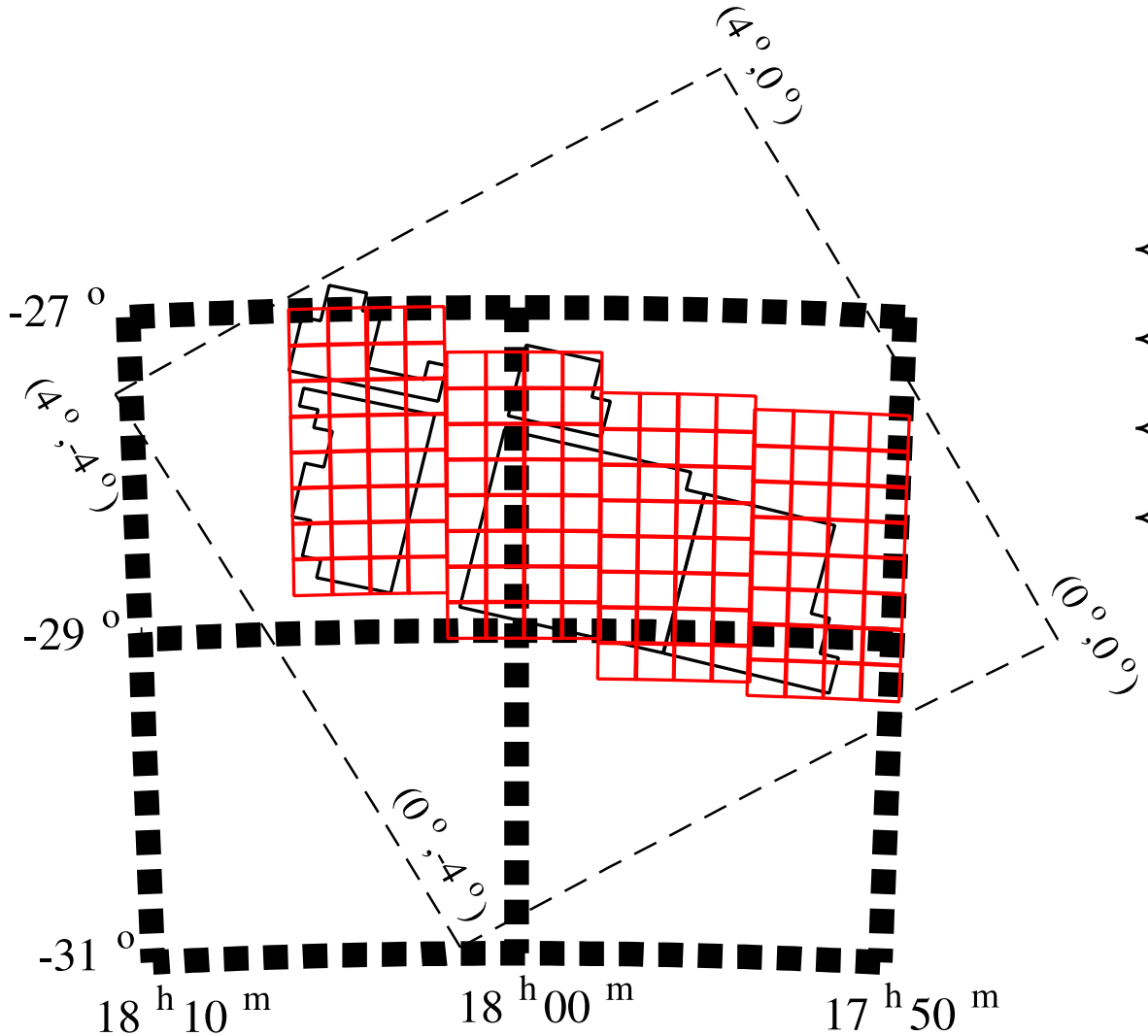
Th, 12/May/2016

Jet Propulsion Laboratory
California Institute of Technology

Short-timescale Events



Observing Short t_E Events: I. NIR Survey



Credit: Yossi Shvartzvald

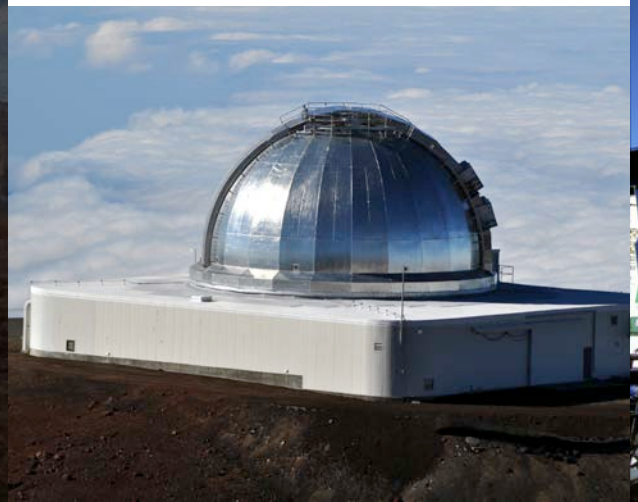
UKIRT

- 32 pointings
- 2—3/night
- 6.0 deg^2
- 99.5% of *K2C9* events

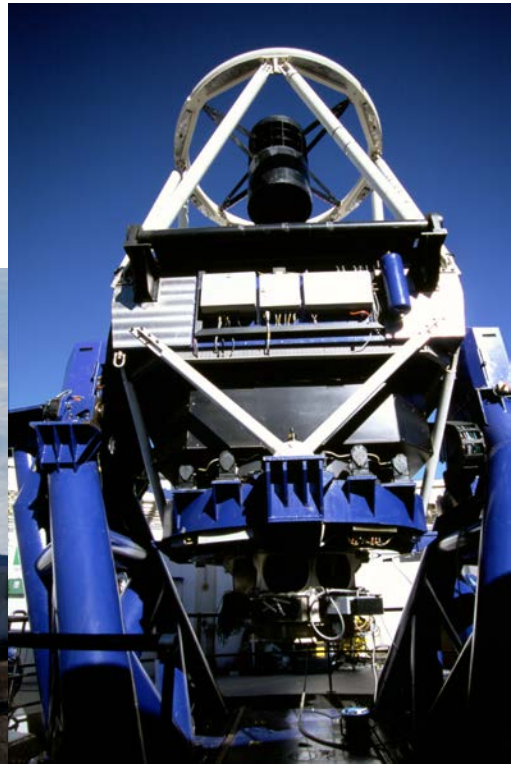
Observing Short t_E Events: II. High-cadence Follow-up

ANDICAM

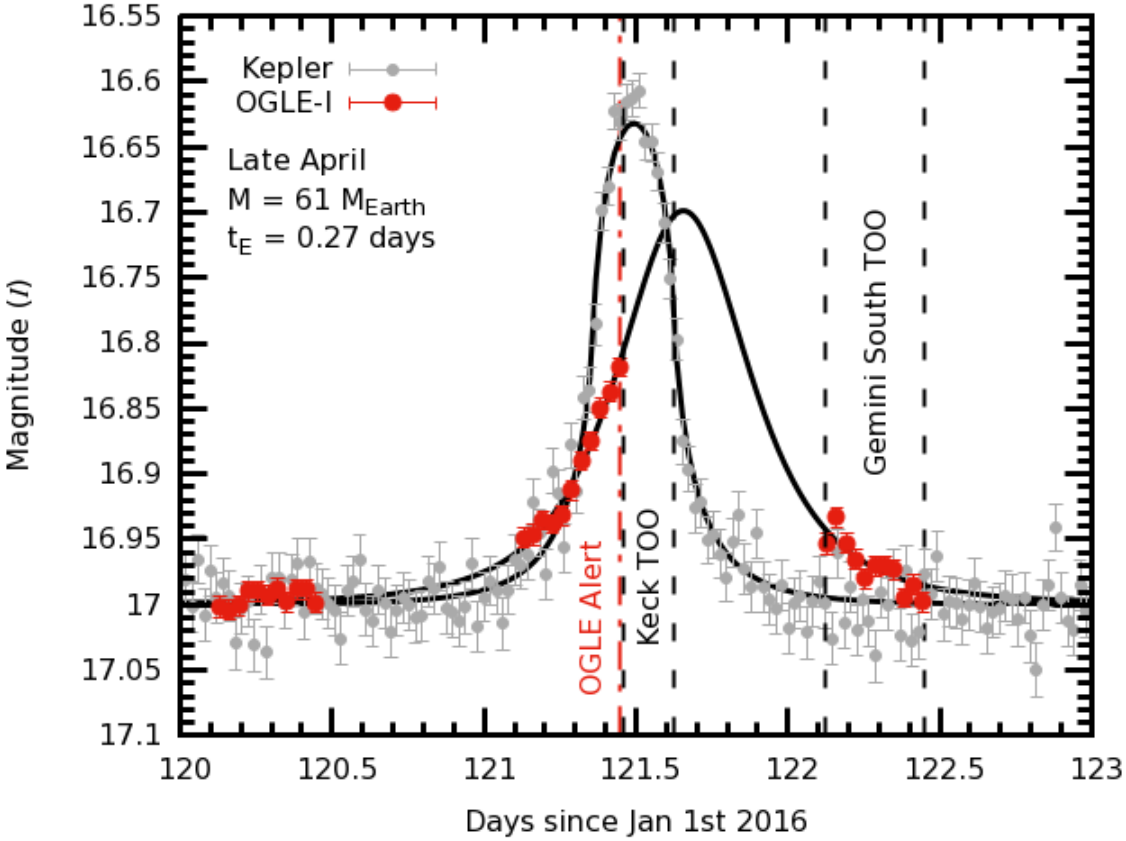
NASA IRTF



Liverpool Telescope



Observing Short t_E Events: III. Keck ToO Triggers



- ✧ 4 ToO triggers
- ✧ 60 minutes
- ✧ Narrow field
  - ✧ Science: ~0.05—0.2”
- ✧ Wide field
  - ✧ Calibration
- ✧ **Strongest lens flux constraints!**