NGTS
Next-Generation Transit Survey

Next Generation Transit Survey (NGTS)

Philipp Eigmüller, DLR Berlin on behalf of the NGTS team

PIs:

Mike Goad (University of Leicester)
Don Pollacco (University of Warwick)
Didier Queloz (University of Cambridge)
Heike Rauer (DLR Berlin)
Stéphane Udry (Université de Genève)
Christopher Watson (Queens University Belfast)
Richard West (University of Warwick)
Pete Wheatley (University of Warwick)

Visit us @ ngtransits.org

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Richard West	(University of Warwick)
Pete Wheatley	(University of Warwick)

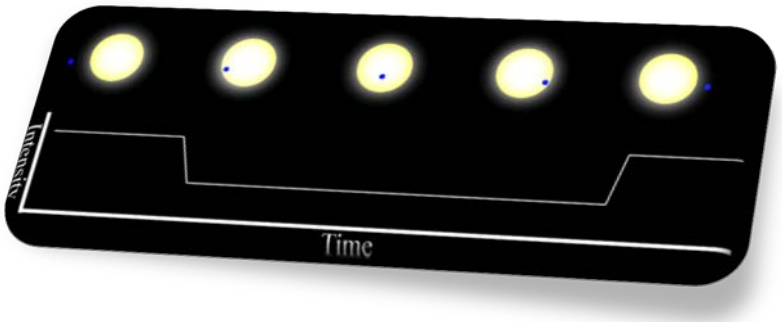
Here at this conference:

Daniel Bayliss
Marion Neveu-Vanmalle
Szilárd Csizmadia

Next Generation Transit Survey

NGTS
Next-Generation Transit Survey

- Search for **transiting exoplanets**
- **Ground based** (Paranal)
- First light: Jan 2015
- **4 years** of operation
- **International Cooperation**
  - experience from SuperWASP, CoRoT, HARPS, etc.



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Instrument Setup

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Number of Telescopes	12
Telescope	ASA custom 8‘‘ hyperbolic design
Telescope focal ratio	f/2.8
CCD	E2v 2kx2k DD chip, Ikon-L by Andor
Pixel Scale	5‘‘/pix
FoV per Telescope	8 square degrees
Mount type	OMI robotic mount

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Science Goals

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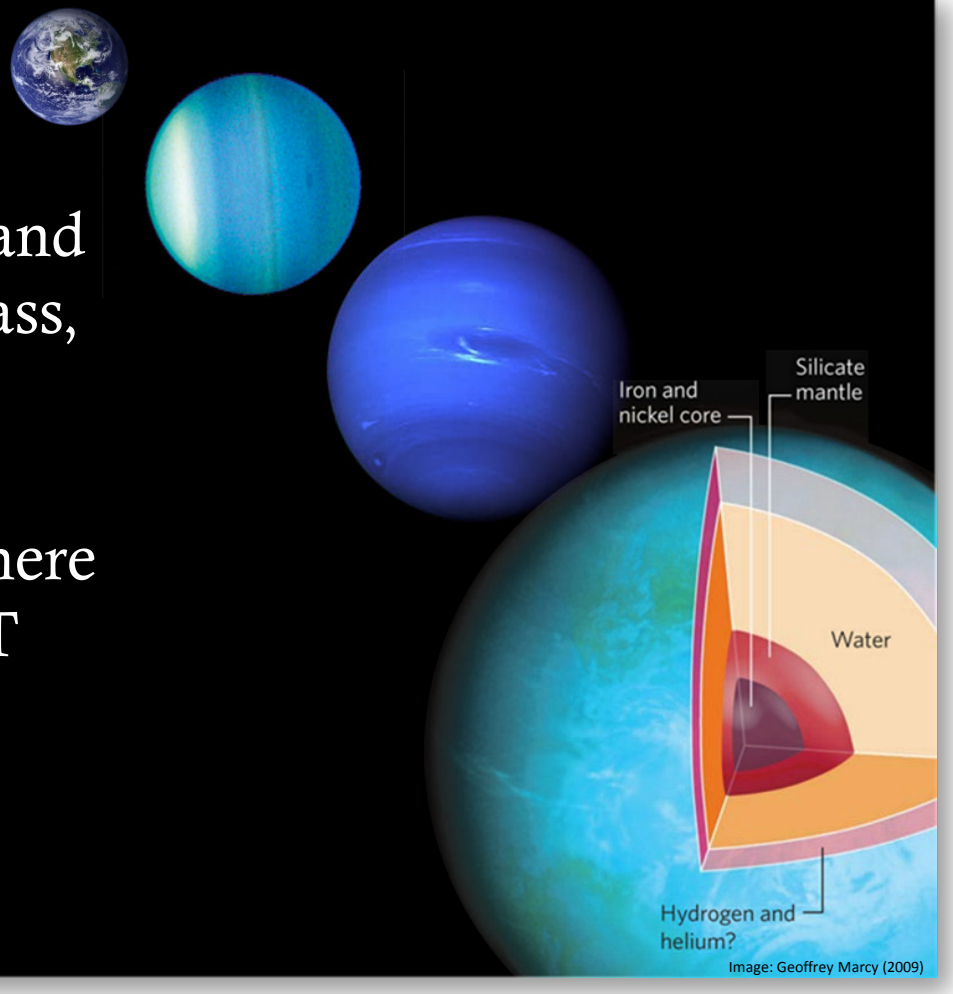
Key science goals:

- Statistical sample of Neptunes and Super-Earths with measured mass, density, orbital separation
- Very bright systems for atmosphere studies with VLT, E-ELT, JWST



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Known Transiting Planets

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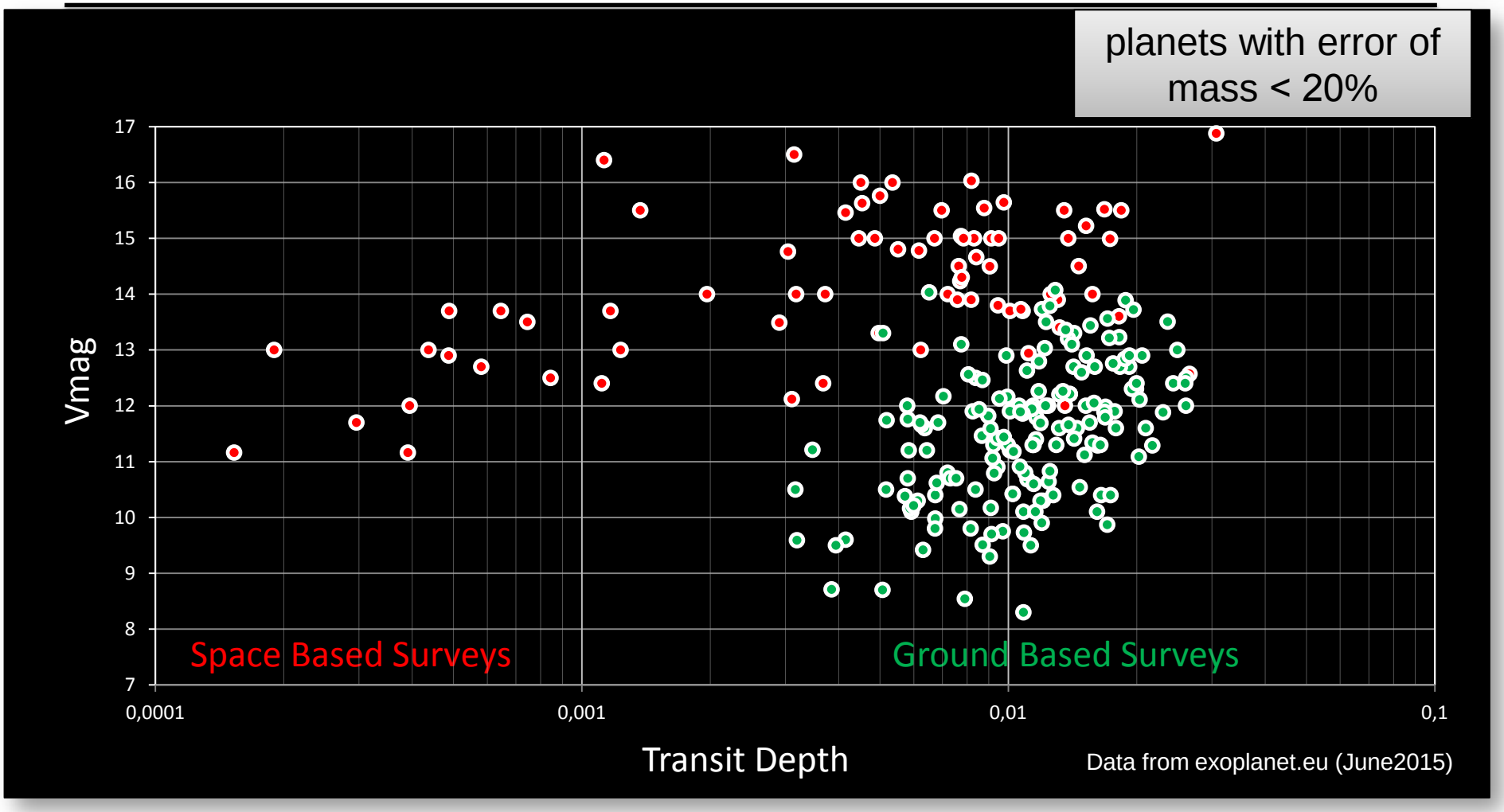

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Detection Range

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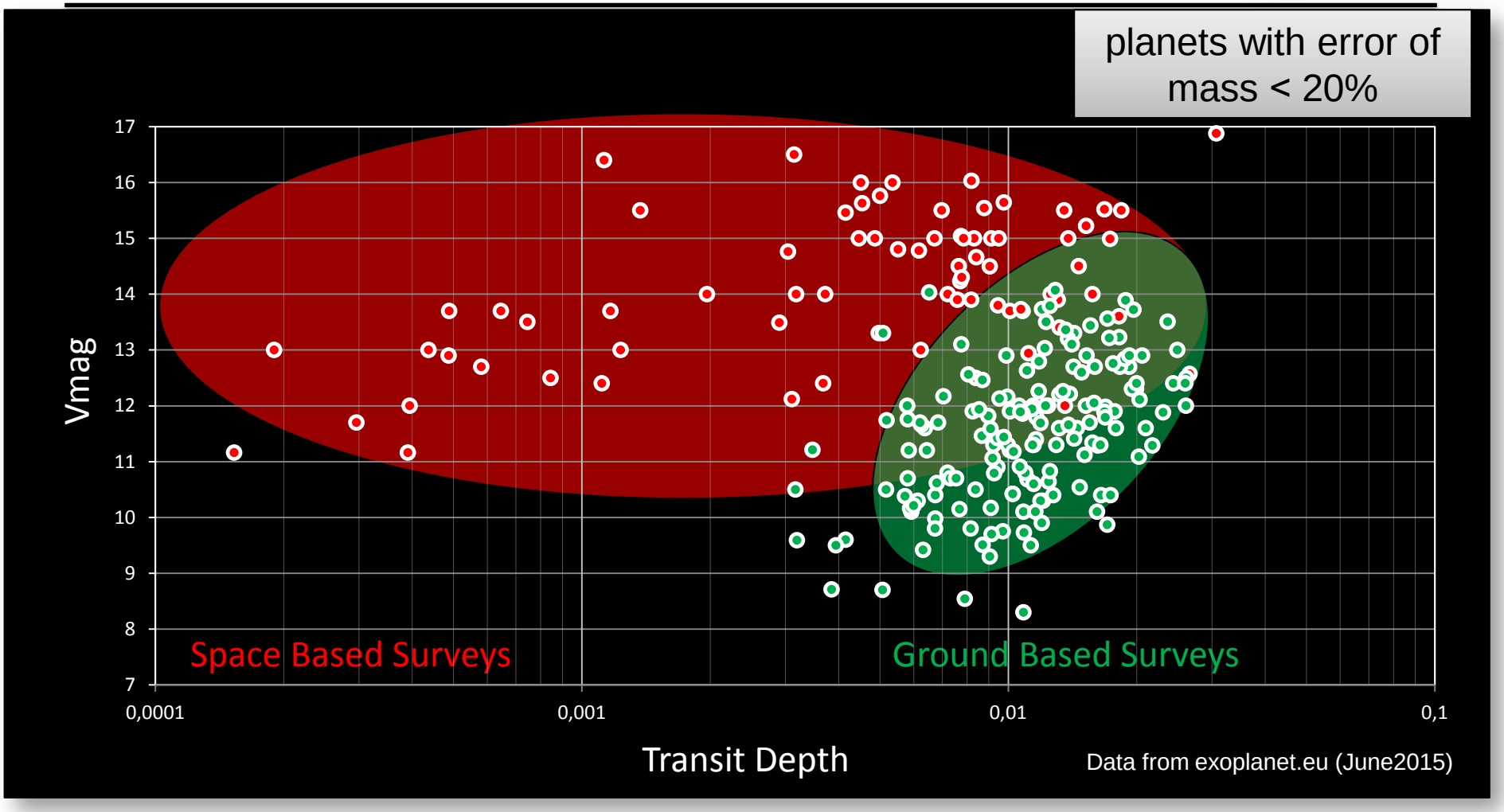

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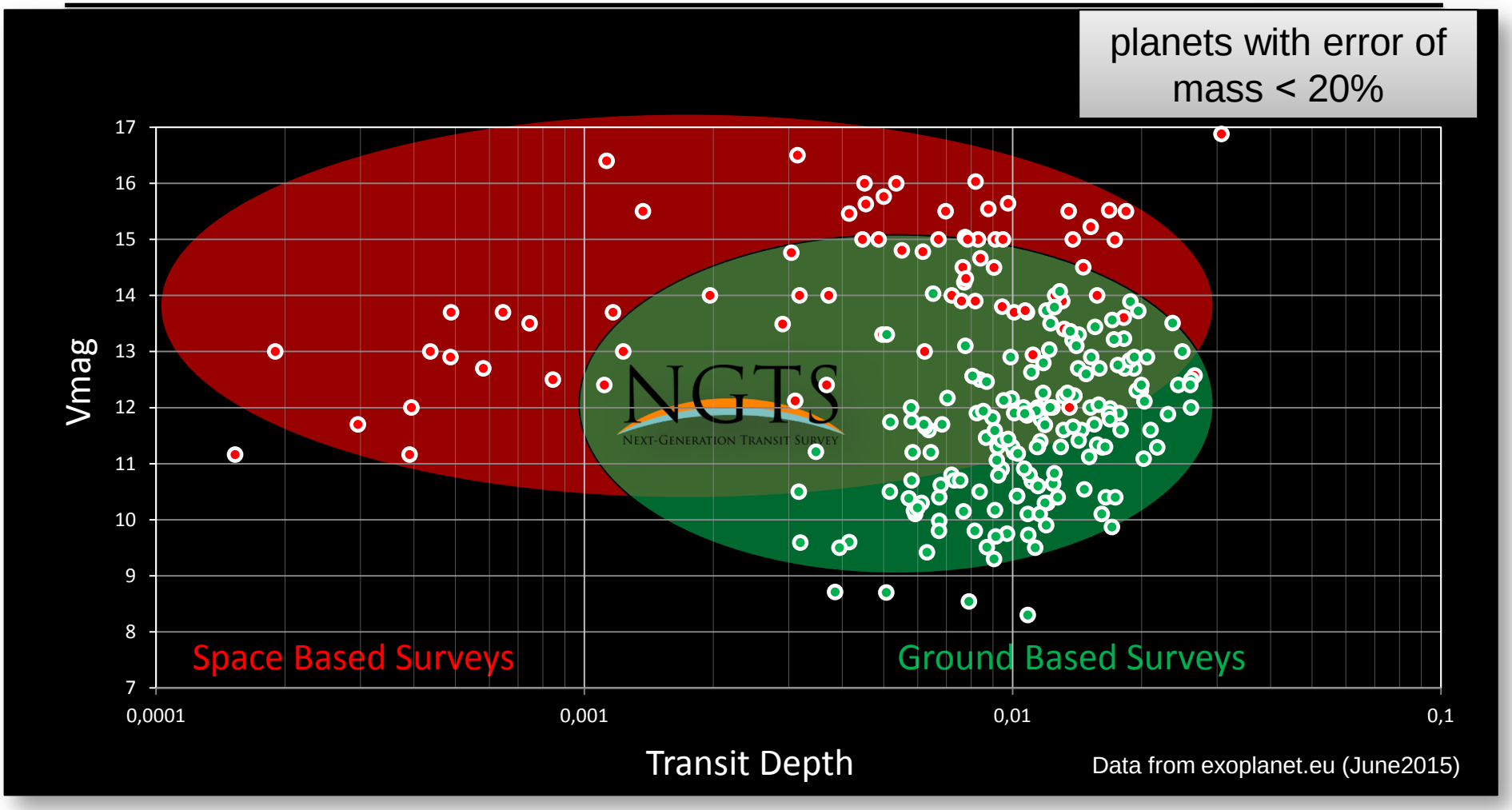
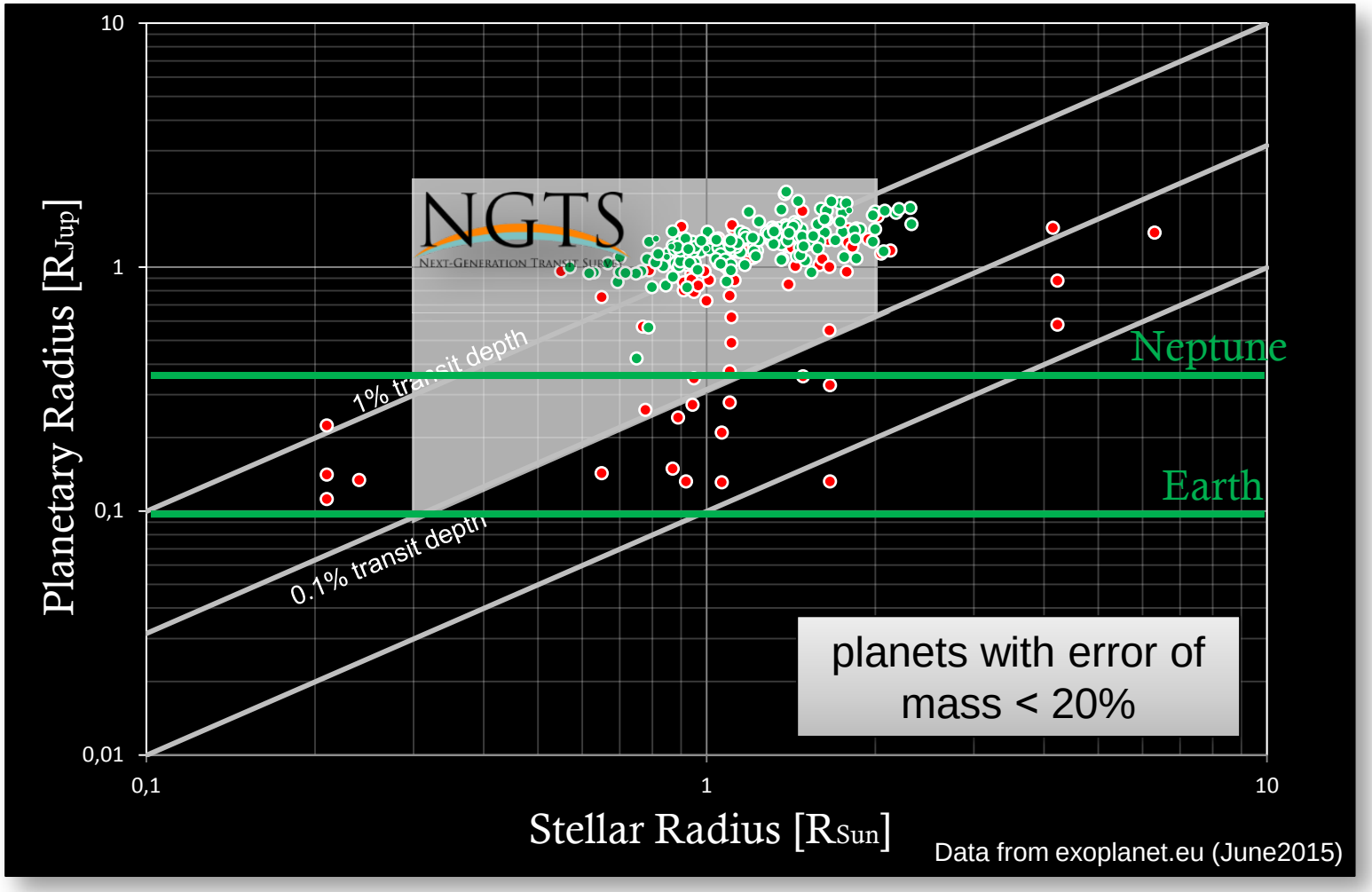
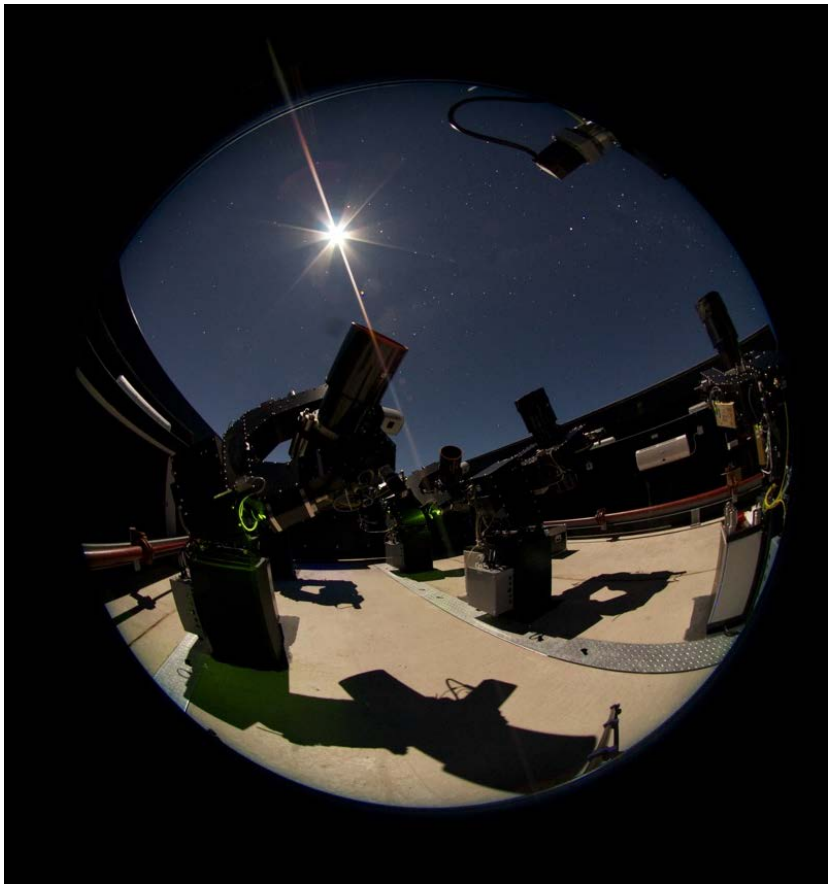
Detection Range



Detection Range



Status



4/12 instruments in commissioning

Observations in monitored robotic mode

For the remaining 8 instruments:

- mounts and telescopes ready
- cameras will be mounted in late summer

Fully operational: end 2015

Status

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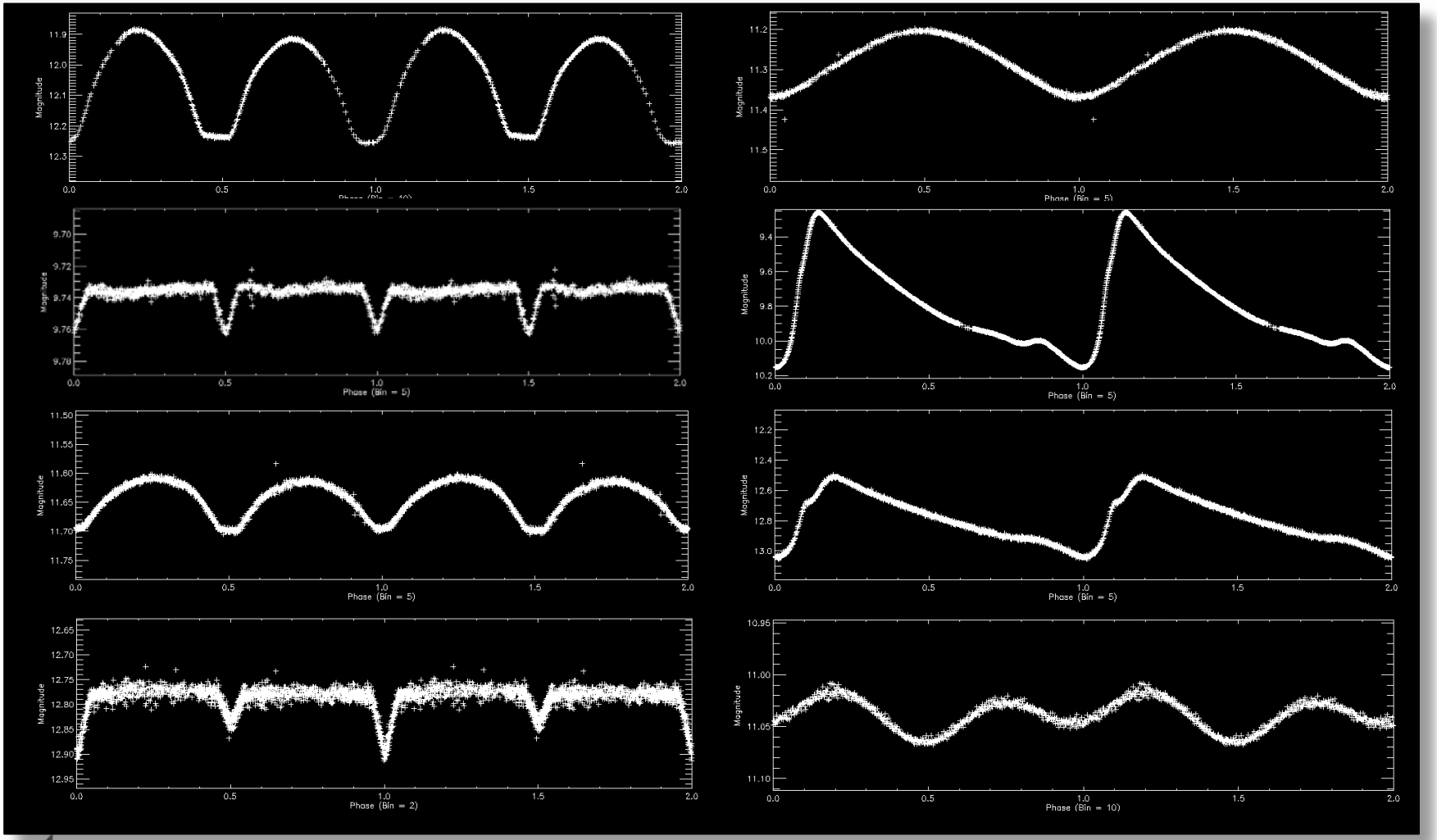

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Status

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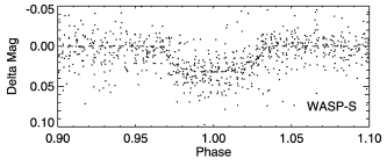
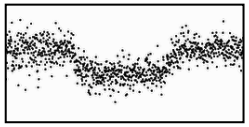
WASP-4b



Wilson et al. 2008,
May-Nov. 2006, phase folded



NGTS, Single event,
Unbinned data

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Status

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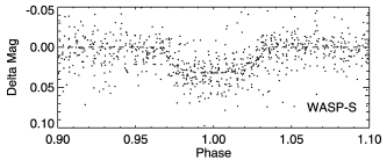
WASP-4b



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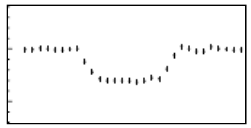

NGTS, Single event,
5min binned data

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Fin

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