



2017 ESO Calibration Workshop

Andreas Kaufer

Welcome to the

2017 ESO Calibration Workshop: the second generation VLT instruments and friends

Scientific Organising Committee

Wolfram Freudling - ESO, Garching
 Edward Graham - University of the Highlands and Islands, UK
 Reinhard Hanuschik - ESO, Garching
 Andreas Kaufer (co-chair) - ESO, Chile
 Florian Kerber (co-chair) - ESO, Garching
 Bruno Leibundgut - ESO, Garching
 Dave Osip - Las Campanas Observatory, Chile
 Suzanne Ramsay - ESO, Garching
 René Rutten - Gemini - Chile
 Alain Smette (co-chair) - ESO, Chile

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Stephane Brilliant - ESO, Chile
 Maria Eugenia Gómez - ESO, Chile
 Paulina Jirón - ESO, Chile
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<http://www.eso.org/sci/meetings/2017/calibration2017.html>

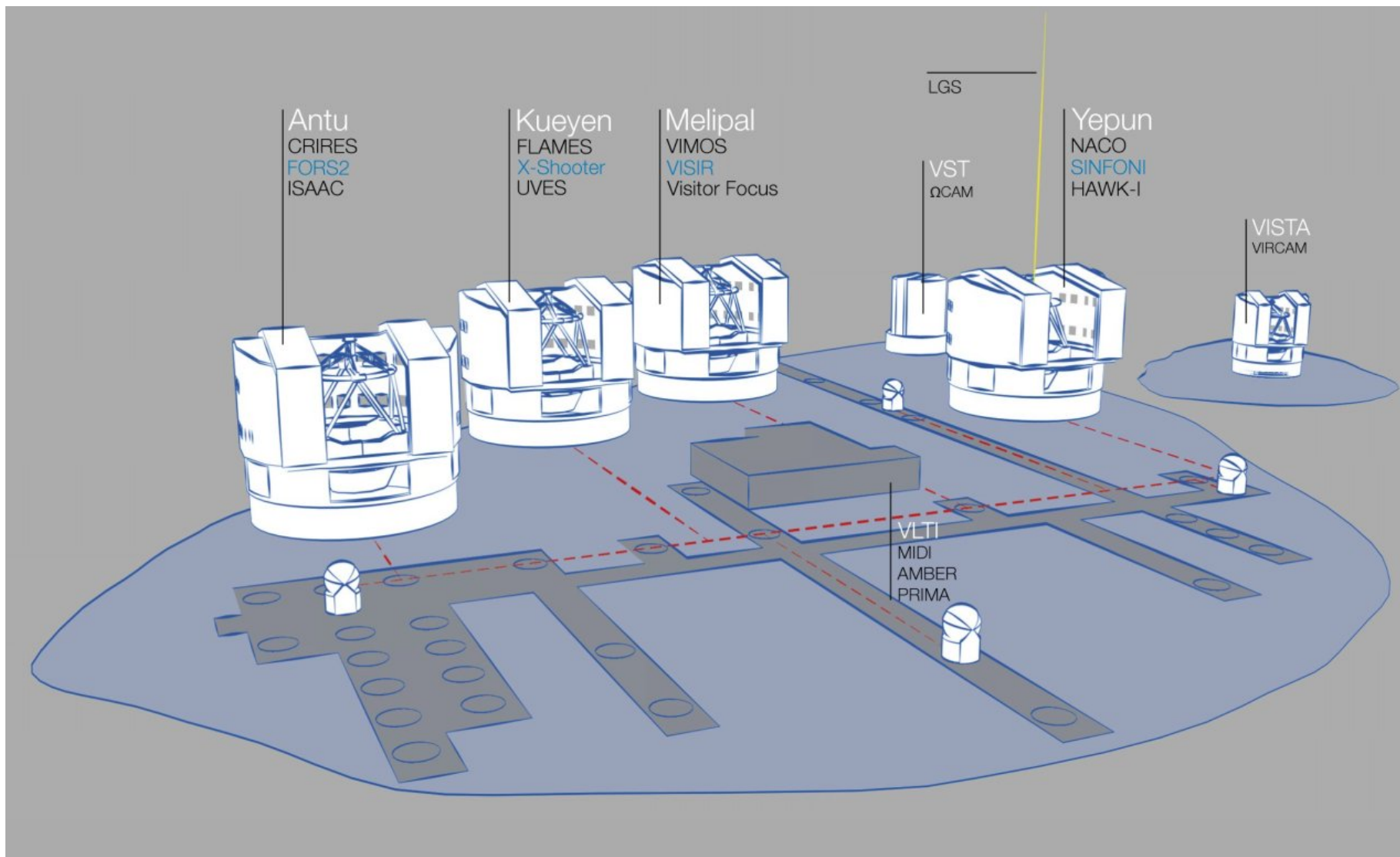
2007 Calibration Workshop

■ Goals

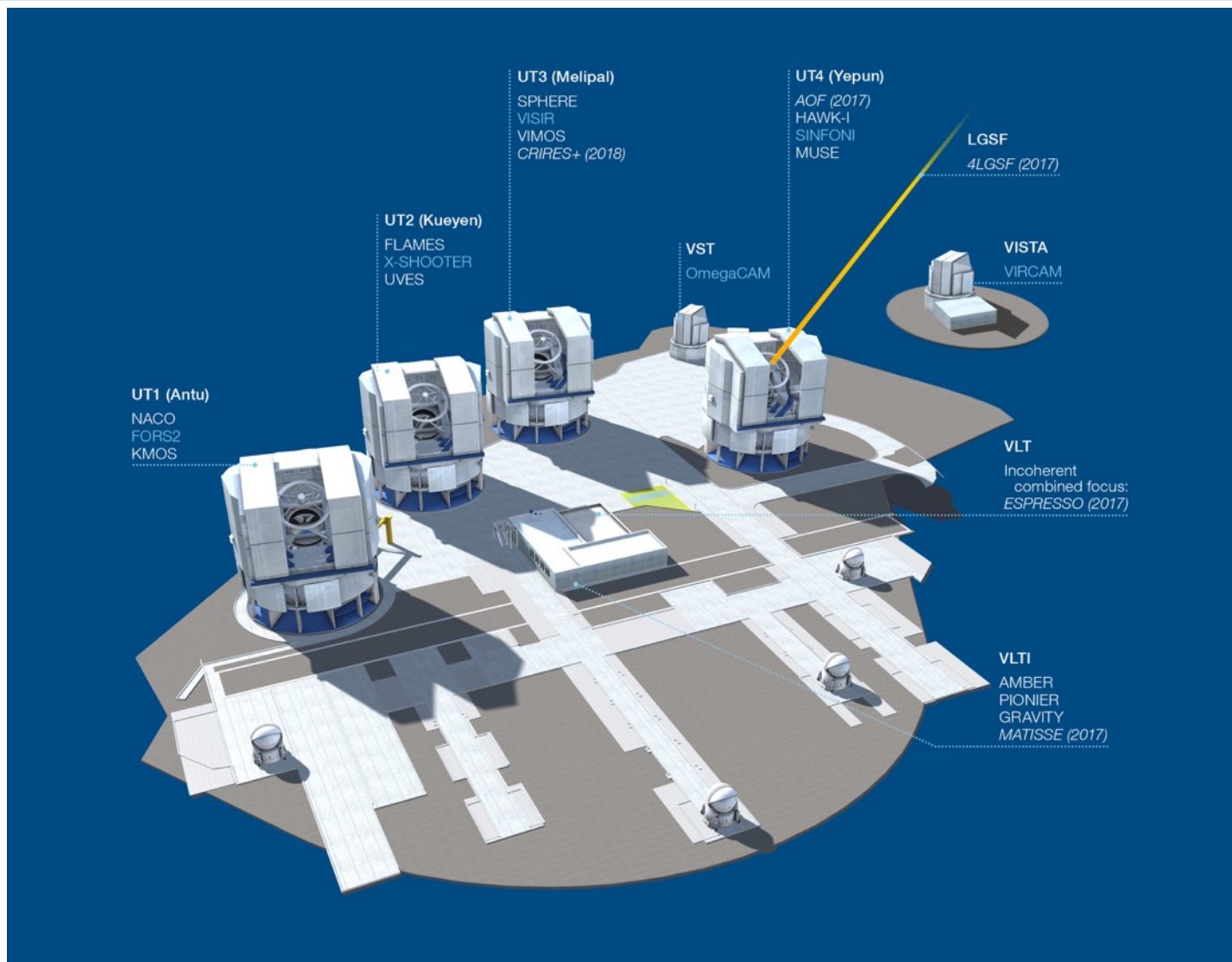
- foster the sharing of information, experience and techniques between observers, instrument developers and instrument operation teams
- review the actual precision and limitations of the applied instrument calibration plans, and
- collect the current and future requirements by the ESO users



2007: VLT 1st Gen Instruments



2017: VLT 2nd Gen Instruments





Today's VLT instruments

16 instruments in operations, Gravity@VLT under Commissioning



SPHERE



FORS2



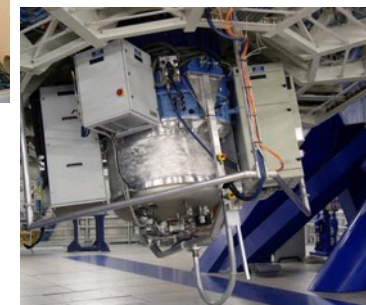
KMOS



GRAVITY



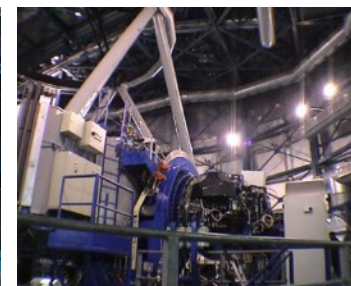
UVES



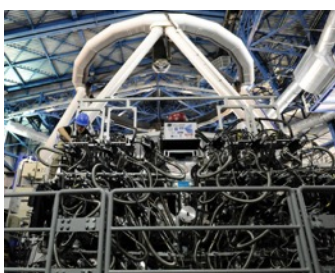
SINFONI



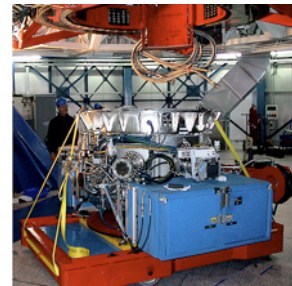
FLAMES



VIMOS



MUSE



VISIR



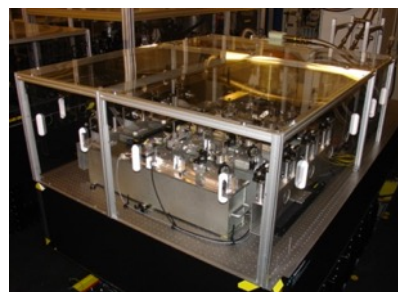
AMBER



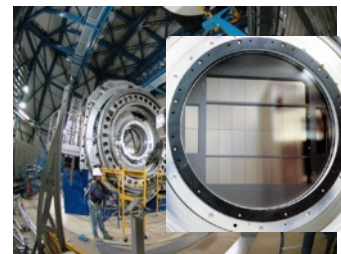
NACO



HAWKI



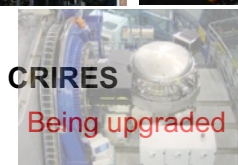
PIONIER



VIRCAM + OMEGACAM



XSHOOTER

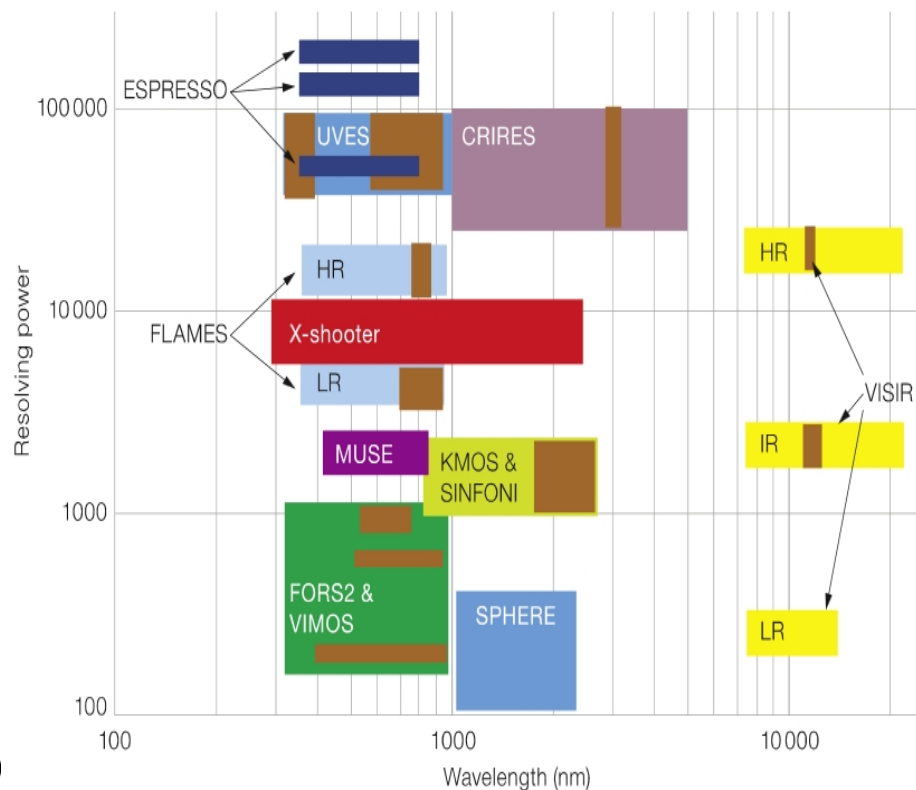
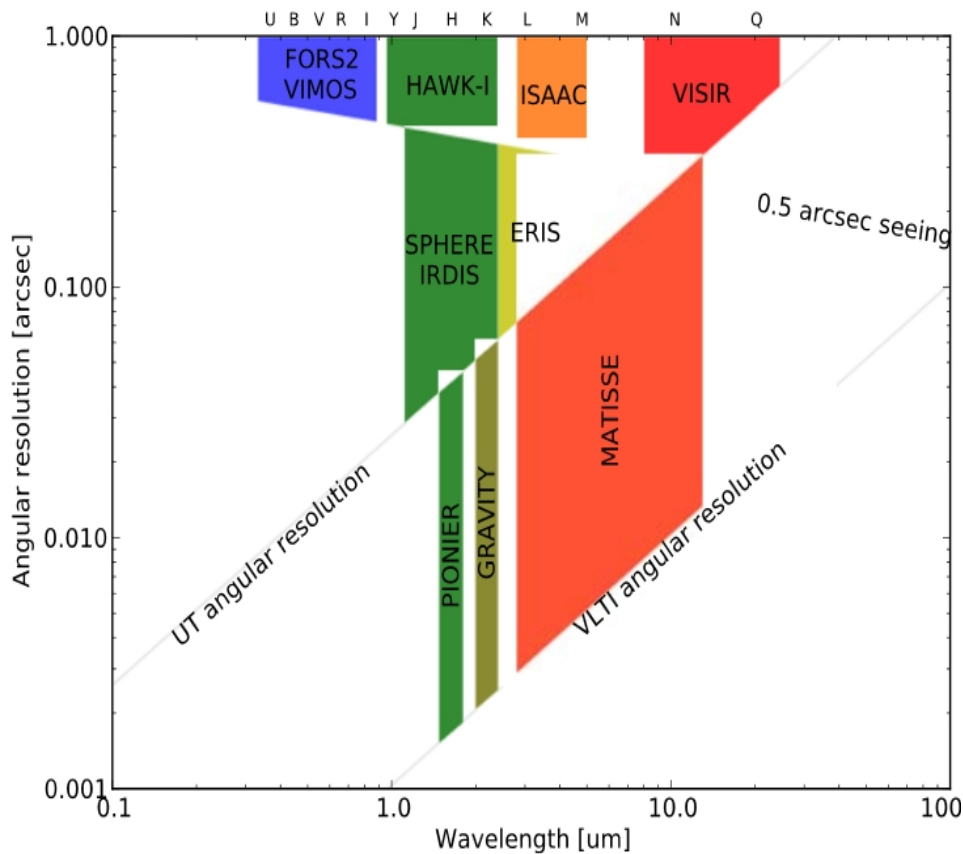


CRIRES

Being upgraded

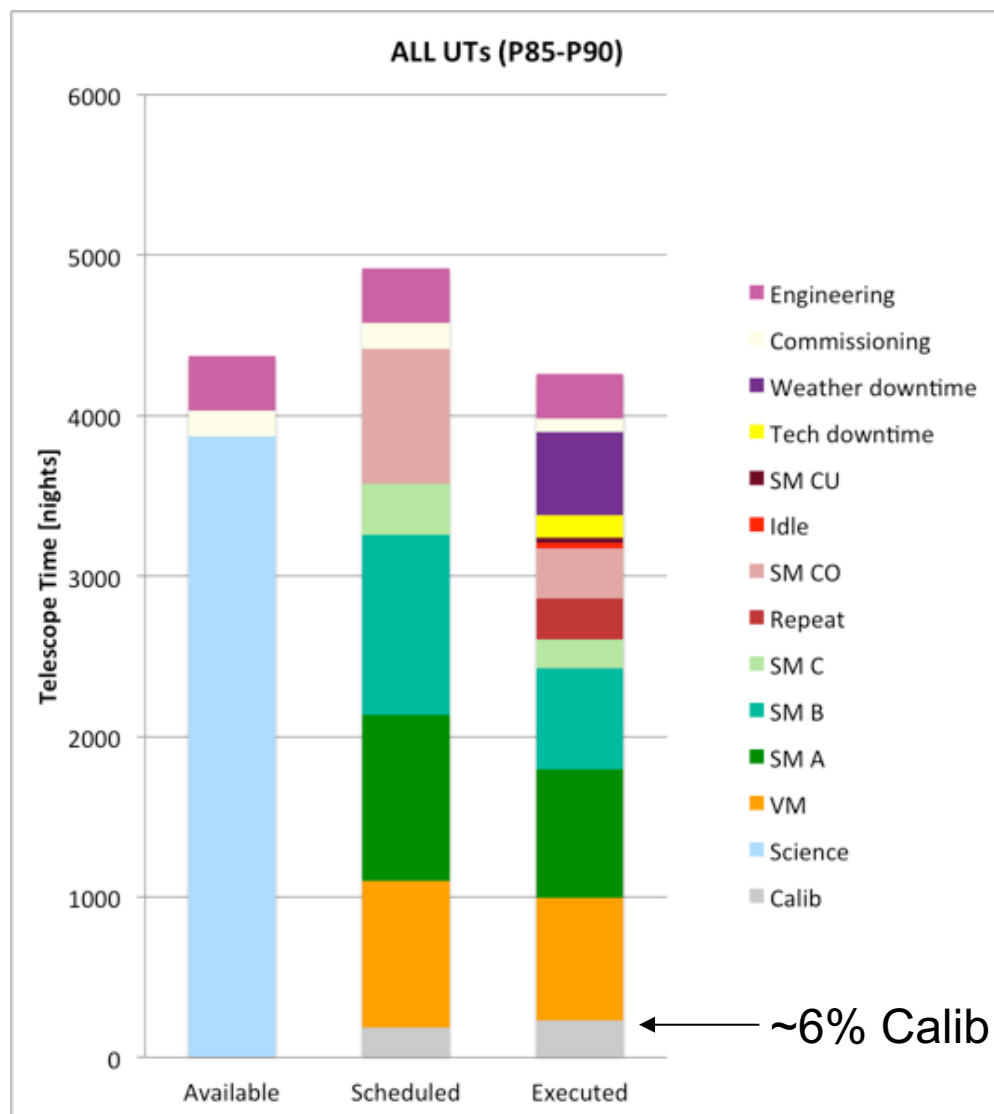
Today's VLT instruments

Parameter space in angular and spectroscopic resolution





Nighttime Calibration Times



	P97	P95
AMBER	2.9%	
FLAMES	4.0%	1.1%
FORS2	7.4%	6.4%
HAWKI	20.4%	12.4%
KMOS	26.9%	18.6%
MUSE	4.4%	4.1%
NACO	6.4%	2.3%
PIONIER	2.3%	
SINFONI	18.9%	12.5%
SPHERE	4.3%	6.1%
UVES	2.9%	4.1%
VIMOS	19.0%	17.2%
VISIR	37.0%	29.2%
XSHOOTER	11.4%	11.0%



2017 ESO Calibration Workshop

■ Intends to

- bring together astronomers and instrument scientists from various fields of expertise to share their experience,
- foster collaboration between ground-based observatories in Chile and to learn from each other,
- engage in open discussion,
- challenge current limitations,
- try to develop creative concepts for better calibration in the future, and
- cover
 - all calibration aspects that are relevant to the user community or science operations for ESO's Paranal (VLT) and La Silla sites,
 - the progress made in characterizing the properties of the atmosphere that allow science operations to make the best use of the current conditions,
 - the progress made in data reduction and pipeline tools.

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