The STAC Perspective

Laura Parker

McMaster University

Who are we

Laura Parker (Chair)
McMaster University

Alberto Rodriguez Ardila —> **Henri Plana**
Laboratório Nacional de Astrofísica *Universidade Estadual de Santa Cruz*

Thomas Barnes
McDonald Observatory, University of Texas

Guillermo Bosch
Universidad Nacional de La Plata

Fabio Bresolin
University of Hawaii

Craig Heinke
University of Alberta

Elliott Horch
Southern Connecticut State University

Inese Ivans
University of Utah

Marcelo Mora
CONICYT

Abhi Saha (cycling off)
National Optical Astronomy Observatories

Andrew Skemer
UC Santa Cruz

Eric Steinbring
NRC Herzberg

Marsha Wolf
University of Wisconsin–Madison

What do we do

The Science and Technology Advisory Committee advises the Gemini Board on policy matters of long-range scientific and technical importance.

- development priorities
- desired capabilities
- suggestions on proposal time balance
- monitoring of completion and oversubscription rates
- visiting instruments

STAC members also serve on other Gemini committees (instrument selection, director search, ad-hoc governance sub-committees, etc)

Some recent recommendations

- Large and Long Programs - guaranteed level of completeness, obligation to supply processed data for future LLPs

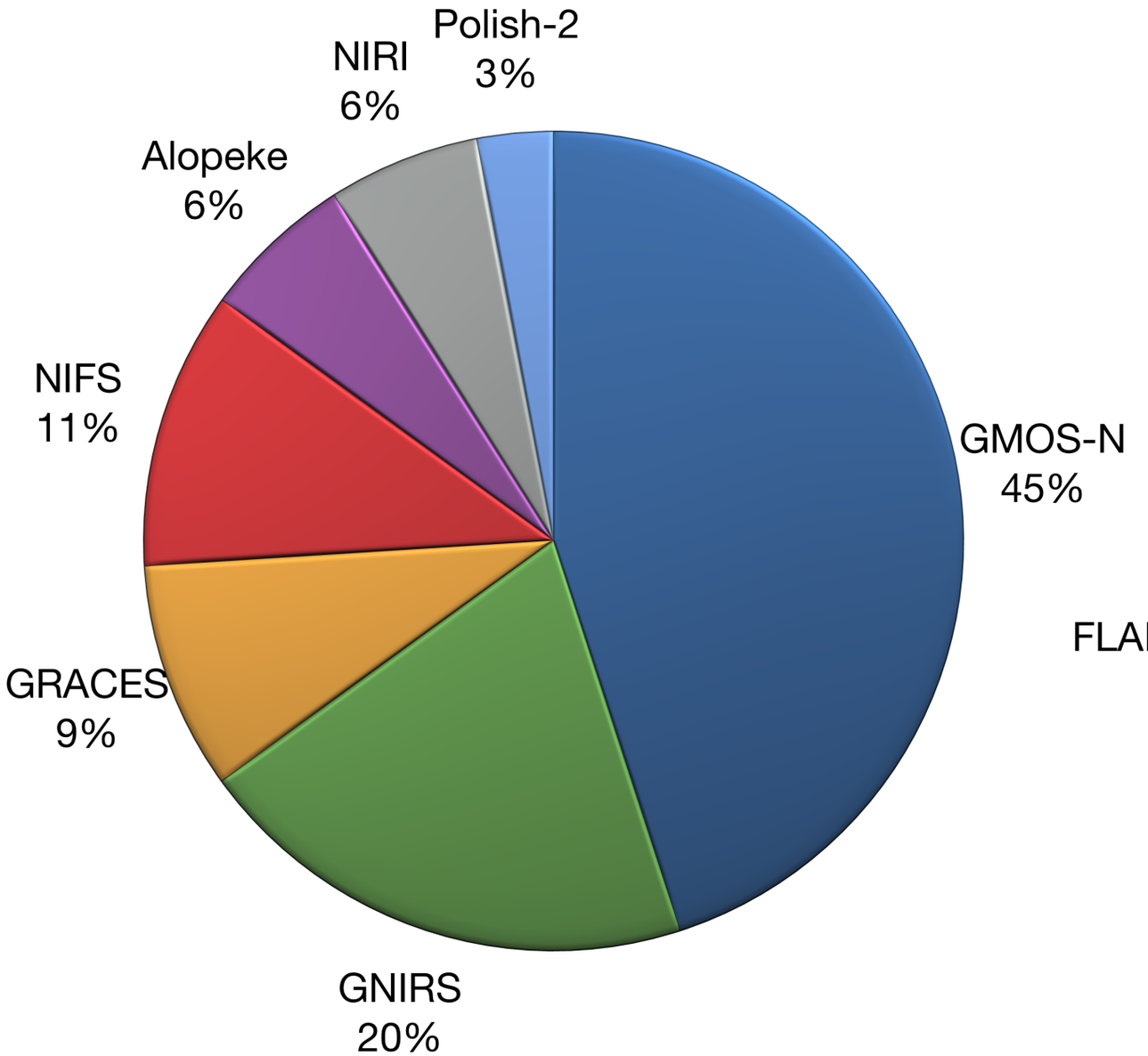
- LSST plan - how to: ensure all partners benefit, protect PI time, dealing with many more targets of opportunity

- Visitor instruments - how to support, possibilities for ‘facilitizing’ instruments

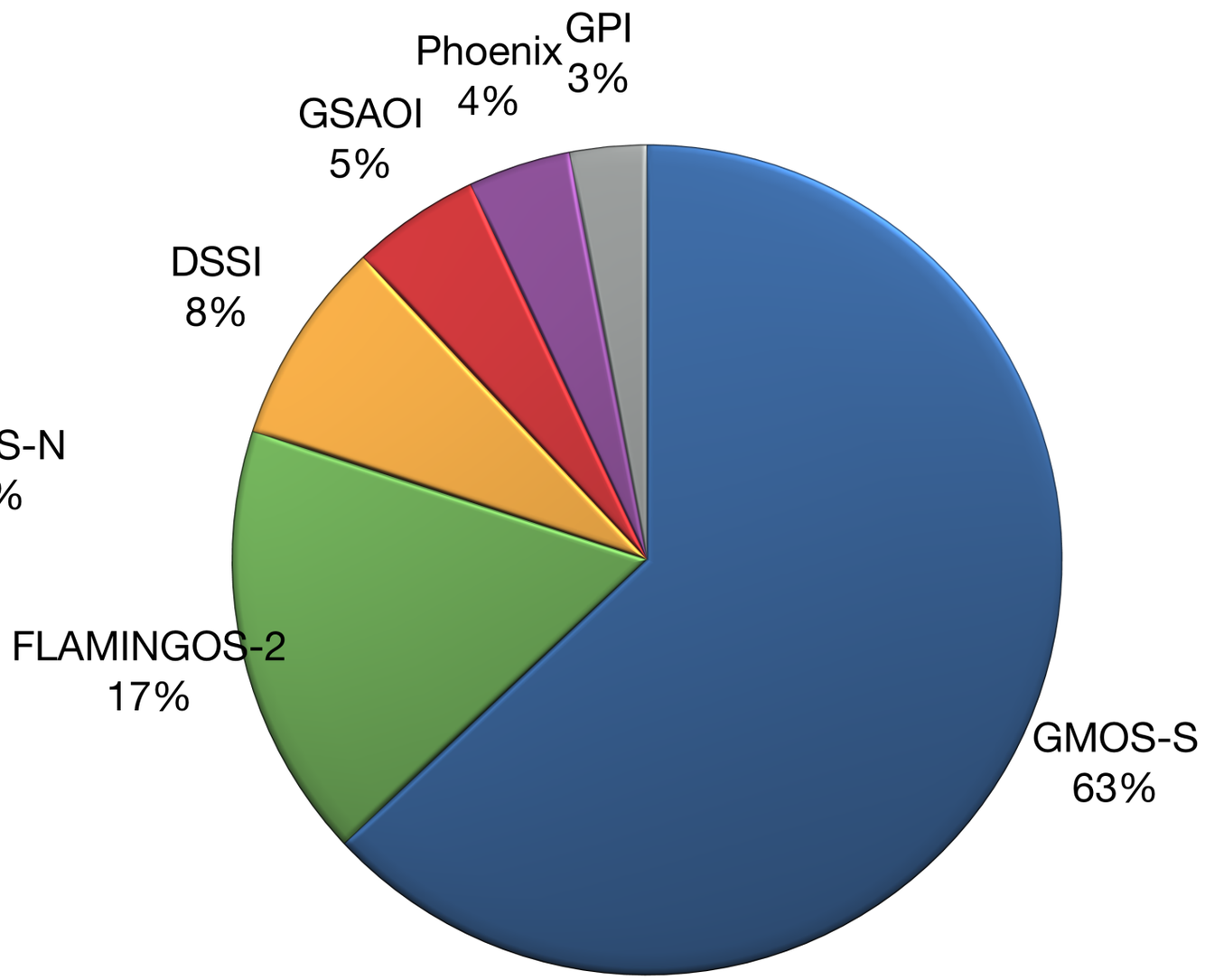
- Requested a study on the possibility of moving GeMs to Gemini-North

- Make pipelines a development priority

2018B
Time Requested

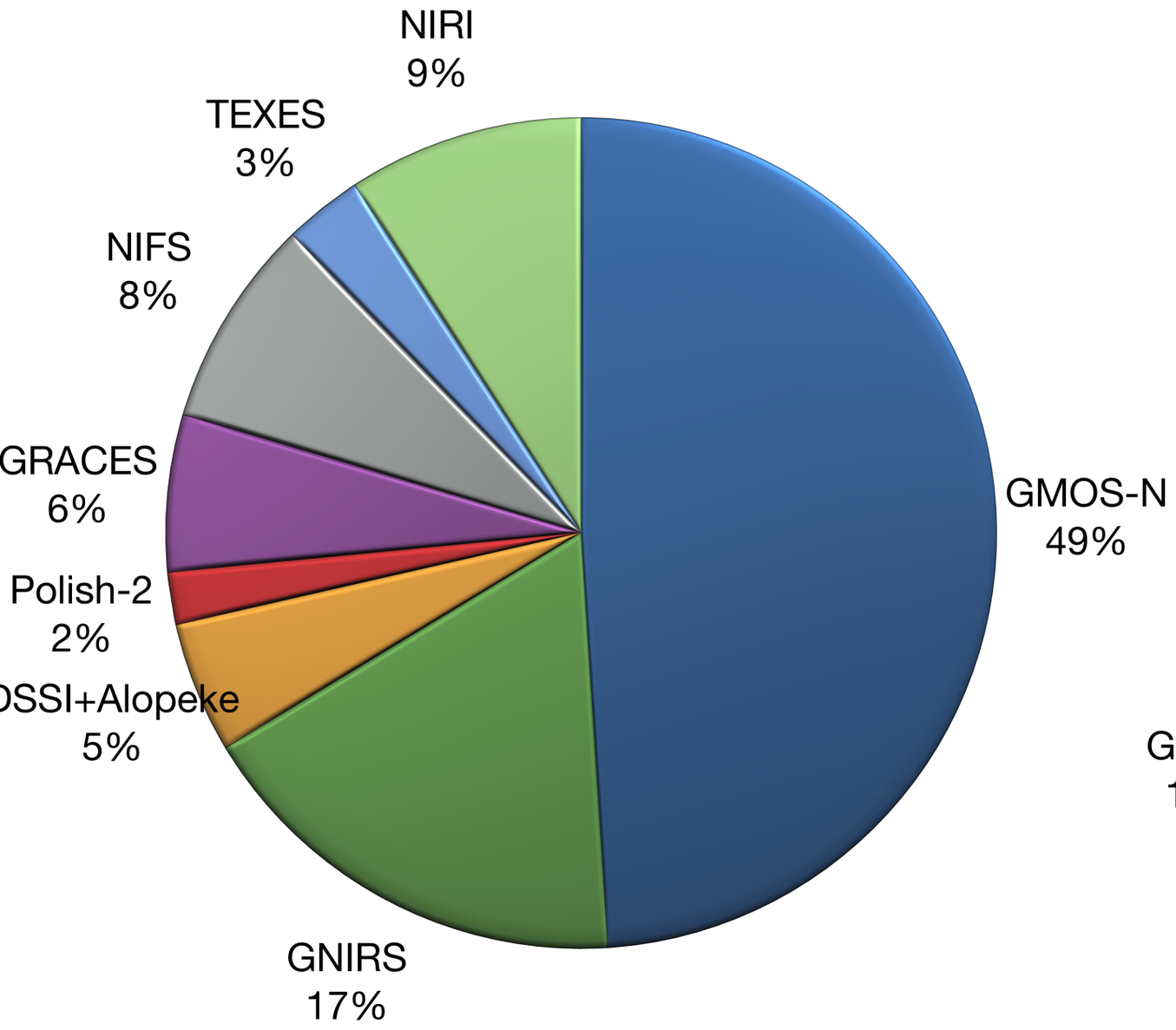


North

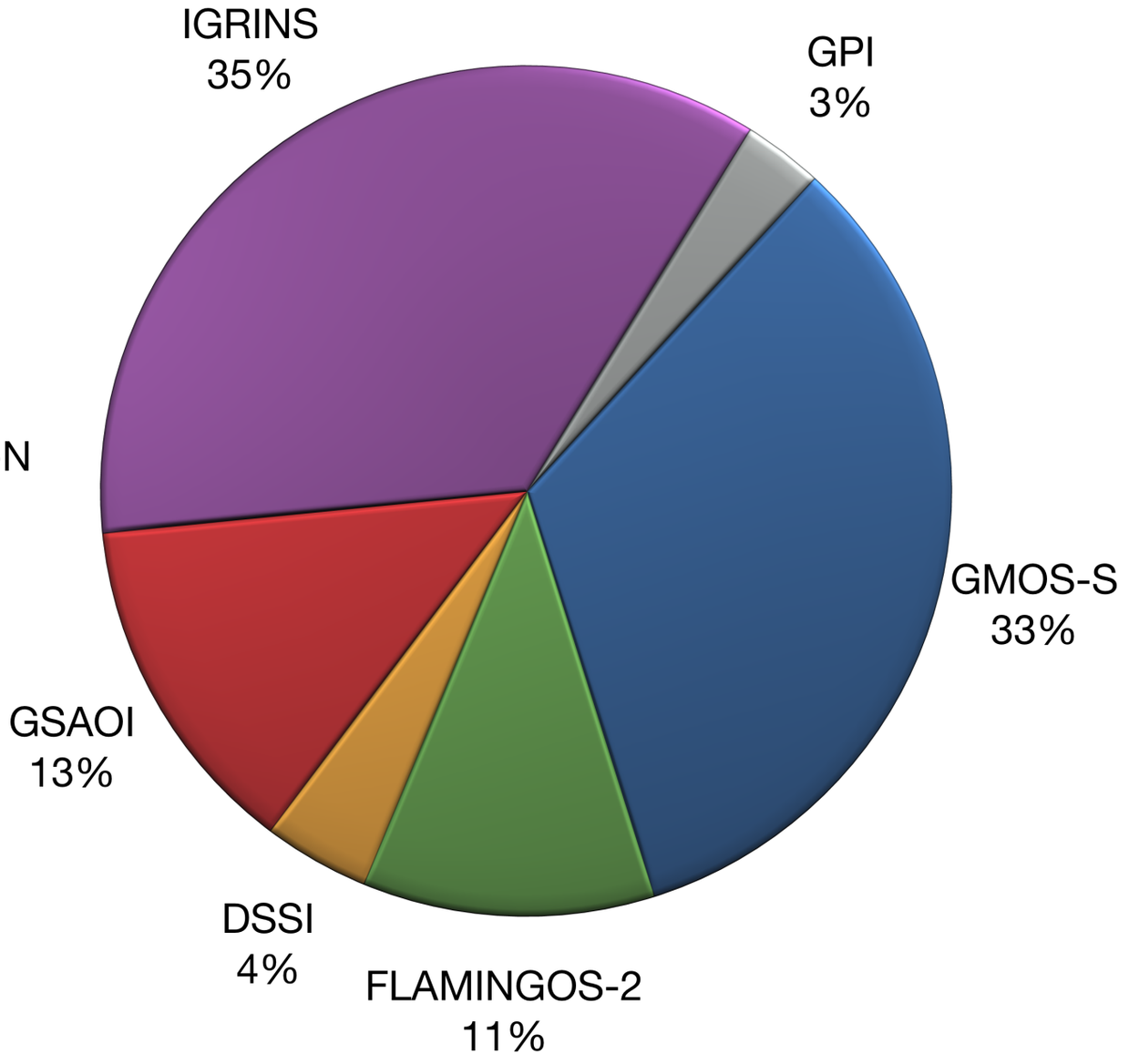


South

2018A
Time Requested



North



South

GMOS is ~50% of time requested on each telescope, year after year

Other things we think about

- Gemini N vs S - which instruments should go where, unique opportunities at the two sites (GPI discussion this afternoon)
- LSST follow-up for all partners (tomorrow morning)
- Updated AO capabilities on G-N (Wednesday afternoon)
- New facility instruments - desired capabilities
- Visiting instruments - how many? how much observatory support?
- Block scheduled versus queue - efficiency concerns

Visiting Instruments

- We are enthusiastic about the exciting capabilities visiting instruments enable, especially given the limited funding for new facility instruments

- Some visiting instruments are being built specifically for Gemini and will be more like facility instruments (Thursday morning session)
  - require substantial staff support for integration
  - no visiting instrument team can support dozens of nights of observations per year, popular visiting instruments need to be supported at a higher level

- Concerns:
  - how much support should be provided? how to decide?
  - how many visiting instruments can be supported?
  - block scheduling inefficiencies

Maximizing Science

- Reduction pipelines
- New instrumentation and capabilities
- Optimizing target of opportunity observations in the era of LSST
- Block scheduled vs queue
- Proposal balance between Regular, Large & Long, and Fast Turnaround

The Big Picture

- Two 8-m telescopes in the era of larger apertures and dedicated survey telescopes
  - two telescopes can develop different specializations
  - balance between PI and large programs
  - synergies with other facilities (Wednesday morning)

- Gemini advantages:
  - responsive (ToOs, fast turnaround, visiting instruments)
  - workhouse instruments
  - Infrared capabilities
  - Adaptive Optics (GeMS, what about the North?)

Concluding Thoughts

- The STAC makes recommendations to the Board about science and technology

- We try to make recommendations that will maximize the science from Gemini, while respecting the needs of our diverse user community

- We are also keen to hear from users. Feel free to contact any of us!