#### OBSERVING TIME PROPOSAL FORM 2025A

# for the 1.5 m solar telescope GREGOR at the Observatorio del Teide, Tenerife, Spain

For the GREGOR observing phase from April - August 2025, you can apply for KIS time, Spanish time, and ITP time. For KIS time submit your proposal to kis\_tac@leibniz-kis.de. For Spanish time access the web page at: http://research.iac.es/00CC/solar-cat/. For the International Time Programme (ITP/CCI), send you proposal to east-tac@astro.su.se.

For more information consult:

https://www.leibniz-kis.de/en/observatories/gregor/observations-with-gregor/and
https://www.leibniz-kis.de/en/observatories/gregor/gregor-instruments/

For questions please contact KIS info mail: kis\_tac@leibniz-kis.de

Proposal Deadline: 24 January 2025

The applicant acknowledges the following notes:

- 1. The GREGOR TAC will allocate observing days including weekends. The observer team will be able to conduct observations **on-site or remotely** with the support of observing assistants present at GREGOR.
- 2. The PI is committed to cooperate archiving the raw data, and to make Quick Looks available as soon as possible, typically in less than 1 month after recording the data;
- 3. The PI agrees to follow the rules in the instructions for observers, which include safety precautions to avoid endangering the telescope and the requirement to read manuals before the observations.
- 4. The PI commits her/himself to submit an observing report according to a given template within two weeks after the campaign focusing on the telescope and instrument performance. For efficient use of telescope time, the technical staff needs feedback about the performance of the telescope and instruments.
- 5. The PI agrees that the data are openly available after a proprietary phase of 12 months. For PhD theses, the proprietary phase is prolonged to 2 years.
- 6. The PI is encouraged to share the data with consortium members and with external scientists on a collaborative basis.
- 7. All publications based on GREGOR data have to acknowledge GREGOR according to the template on our website.

## 1 Title of Project:

# 2 Applicants

Principal Investigator:
Affiliation:
Email address:
Co-Investigators(s):
Affiliation(s):
Email address(es):
[ - ] We/I apply for time under the KIS Time. Send to kis_tac@leibniz-kis.de [ - ] We/I apply for time under the German Time (AIP/MPS). Send to tac@leibniz-kis.de [ - ] We/I apply for the Intern. Time Programme (ITP/CCI). Send to east-tac@astro.su.se [ - ] We/I apply for Spanish time. http://research.iac.es/00CC/solar-cat/
[ ] The PI is a PhD student and the proposal is for data for the thesis.
[ ] I require a computer account at OT. [ ] I already have a computer account at OT.
[ ] I am a first time or inexperienced user. (Please contact kis_tac@leibniz-kis.de in case of questions, and in case of using HiFI+ also cdenker@aip.de before submitting the proposal.)

### 3 Justification

#### Scientific Objectives of Observing Time

#### 3.1 Scientific Relevance

(Please give a statement of the scientific objectives and relevance of the requested observing campaign and describe your observing plan in some detail (instrument, spectral line, other instrument specific details). Please make sure that all necessary information is provided and that no identifying information about the PI/team is included.)

#### 3.2 Previous data

(If you were awarded observing time for a similar topic previously, summarise previous results or show the progress of your current analysis and justify why you need more observing time. If archive data are available, please justify why they cannot be used for your study.)

## 4 Observing requests:

#### 4.1 Setup requested:

(Please include the required instrument setup description and fill the checklist table based on available instruments (see below)

- GRIS slit-scanner: Two simultaneous spectral arms in 1083.0 and 854.2 nm or in 1282.0 and 854.2 nm. Or one spectral arm at arbitrary wavelength between 1.0-1.3  $\mu$ m or 1.55-1.80  $\mu$ m
- GRIS IFU: Same as above, but in commissiong mode for two arm configuration.
- HiFI plus: Fast context imaging below 740 nm (below 650 nm if using H-alpha Slitjaw): blue continuum, G-band, H $\alpha$  narrow/broad, TiO, Ca II H
- AO: GREGOR has a new AO mode (H-alpha-AO) which allows to lock the AO off-limb on prominences (if the prominence shape permits). This mode is offered on a shared-risk basis and allows to use of HiFI H-alpha 656 narrowband and GRIS in the slit or IFII mode
- ZIMPOL: In collaboration with IRSOL, high-precision spectropolarimetric observations with the ZIMPOL polarimeter are offered in service mode for projects requiring a short observing time (up to a few hours). The available spectral range is 4250 Å 6800 Å and the spectral window is a few Angstroms (depending on order and wavelength).
- Please state whether you plan to use the SJ imaging system.

If applicable, describe any non-standard setup. Please also list the foreseen observing mode (FOV, exposure times, duration of raster, required S/N, targets, ...)

	1.0-1.3 micron	1.5-1.8 micron	1083.0 + 854.2  nm	1282.0 + 854.2  nm
GRIS/Slit				
GRIS/IFU				

	with $H\alpha$ & TiO	no H $\alpha$ & TiO	
HiFIplus			beamsplitter at 650nm or 740nm

Slitjaw imaging	

	Whitelight AO	$H\alpha$ AO
Adaptive Optics		

ZIMPOL	

Mark with an X in the box based on the required instrumentation.

#### Amount of days requested:

Please justify your choice

#### Coordinated observations

Please list foreseen observing coordination with other telescopes.

#### Impossible Dates:

(An attempt will be made to accommodate your "impossible time" in the schedule. Please also specify if coordinated observations are planned. There is absolutely no guarantee for success of this attempt.)