"This project has received funding from the European Union's Horizon 2020 research and innovation programme for the period January 2019 until December 2022 under Grant Agreement No 824135 (SOLARNET)"

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Revised	Dan Kiselman	SU	WP9 Leader	June 24th, 2020
Approved	Dan Kiselman	SU	WP9 Leader	June 24th, 2020

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Introduction

The SOLARNET Trans-National Access Programme includes all of the four largest European solar telescopes and a balloon mission. There is also a supercomputer which complements the efforts on observational infrastructures with support for producing simulation data necessary for the interpretation of observational data. In this way, SOLARNET attempts to open the key infrastructures in the field of high-resolution of Solar Physics for the benefit all European researchers. Apart from coordinated observations and networking, the programme is expected to serve as a training ground for a large fraction of first-time users who are essentially young researchers in this field.

Participating infrastructures

GREGOR

With an aperture of 1.5 m, GREGOR is the largest solar telescope in Europe, located at Observatorio del Teide, Tenerife, Spain and operated by KIS. Access is provided in visitor mode. Of the existing instruments, the most demanded one is the infrared spectropolarimeter GRIS.
In the beginning of 2020, a large part of the optical train was rebuilt according to a new design. This resulted in improved performance.

SST

The SST is a vacuum refractor with a 97-cm clear aperture operated by SU at the Observatorio del Roque de los Muchachos, La Palma, Spain. It is optimised for high spatial resolution. The most commonly used instruments are the imaging spectrometers CRISP (for red light and with polarimetric capabilities) and CHROMIS (for blue light). Access is provided in visitor mode. Some time is also offered in service queue mode where observatory staff perform the observations. Another new for SST in the Access programme is that basic data reductions are included in the Access. This often rather time-consuming and complicated work is performed by SU staff.

THEMIS

THEMIS is a reflector telescope designed to be polarization free. It is located at Observatorio del Teide, Tenerife, Spain and participates in the Access programme via CNRS. Access is provided in visitor mode.
After a period of redesign and refurbishment, THEMIS was retaken into use in the latter half of 2019.

VTT

VTT is the second solar telescope operated by KIS at Observatorio del Teide, Tenerife, Spain. Its specialty is spectroscopy. Access is provided in visitor mode. Co-observations with GREGOR+VTT are not uncommon.
In 2019 VTT was lacking its vacuum window which limited the time when high-resolution observations were possible. A new window was installed in December 2019.

Piz Daint

This hybrid Cray XC40/XC50 supercomputer is located in Lugano, Switzerland. Access is provided by USI/IRSOL. The access is remote as the users log in from their home institutions.

SUNRISE 3

The SUNRISE observatory is a balloon-borne solar observatory with a 1-m telescope that operates in the stratosphere. The two first flights, launched from northern Sweden in 2009 and 2013, will be followed by a third for which Trans-National Access will be provided. Access will thus be remote with data delivered to

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the users after retrieval of tape cassettes from the parachuted gondola followed by reductions.
The SUNRISE 3 launch was originally schedule to 2021. It has now been postponed to 2022.

Calls for proposals

Here, in **Table 1**, we list and describe the calls made for the Trans-National Access programme during the first reporting period (RP1). The administration of the calls and the allocation of Access are made by the EAST TAC. These activities are described in Deliverable D2.1.

Note that the oversubscription factor is based on the amount of time sought and awarded. For observing time on the SST that is awarded in service mode all projects are assumed to share the time equally. So, when three proposals shared five days they are counted as having received 3/5 = 1.67 days each. For Piz Daint two full proposals were received and both were accepted, hence the number 1.0. But the interest was larger than this implies, there were initially five preliminary proposals but three chose not to submit a full proposal because they did not accommodate their codes in time.

The scientific content of the proposals are high-resolution solar physics where different aspects of the solar atmosphere is studied. The exceptions are the projects aimed at using THEMIS to study the planet Mercury. This planet is always close to the Sun in the sky and therefore difficult to observe with ordinary telescopes due to scattered-light issues and the risk that direct sunlight damages the telescope structure and optics. This is an example where the use of solar facilities can be broadened to new communities.

Period	Installa-tions	Date of call	Deadline	Number of proposals received	Number of proposals accepted. (Of which service mode.)	Over-subscription factor
2019A	GREGOR, SST, THEMIS, VTT	1 Dec 2018	20 Jan 2019	18	8 (3)	3.2
2019B	GREGOR, VTT	15 May 2019	2 Jun 2019	5	3	1.7
2019PD	Piz Daint	1 Sep 2019	24 Oct 2019	2	2	1.0
2020	SST, THEMIS	1 Dec 2019	20 Jan 2020	5	5 (2)	1.4
2020A	GREGOR, VTT	1 Apr 2020	19 Apr 2020	1	1	0.5
2020PD	2020PD	15 Apr 2020	30 Sep 2020			

Table 1: Calls made for the Trans-National Access programme during the first reporting period (RP1)

2019(A): GREGOR, SST, THEMIS, VTT

The first call was prepared and issued before the start of the project period, otherwise there was a risk that the first observing season would be wasted. The interest was significant – the oversubscription factor for the SST was 6.4. Many proposals wanted to use co-observations between several telescopes, something that was difficult to accommodate.

2019B: GREGOR, VTT

The German telescopes prefer to divide the observing season in two parts, so this call was for the period July-December 2019.

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2019PD: Piz Daint

In this first call it was apparent that several applicants had underestimated the effort needed to make their computer codes run on Piz Daint. As a result, five preliminary proposals resulted in only two full proposals.

2020: SST, THEMIS

The oversubscription factor for the SST sank to 1.6. We believe this was partly because several applicants were discouraged by being rejected in the 2019 call and partly because 17 researchers from 8 countries joined forces and submitted one joint application. Such effects should be kept in mind when evaluating application pressure. When a resource is scarce, the prospective users will adapt.

2020A: GREGOR, VTT

This call was issued on April 15, 2020. It was late in the year because of the GREGOR reconstruction described earlier. The idea was to include an Access proposal in the science verification phase. However, most likely due to the COVID-19 situation, no proposals for GREGOR were received.

2020PD: Piz Daint

This call is still open at the submission of this report. With the experience from the first call the time between first call and final deadline was increased to 4.5 months. This to make sure the applicants have ample time to accommodate and test their codes.

COVID-19 impact

The COVID-19 pandemic and the associated restrictions in travel and other activities affect the Access programme during 2020. At the moment of reporting, observing campaigns at the SST have been transformed to service observations and it is unclear when the other telescopes can open.

Participation of non-associated countries

To be eligible for Trans-National Access, a proposal must have a PI and half of its Co-I's from an EU or associated country. However, there is an option to allow other proposals up to a limit of 20% of the total amount of Access. The first calls were made without using this option. An important reason for this was that we wanted to save the quota to support our UK colleagues in event of a Brexit that would leave the UK outside H2020 actions. When it was clear that this risk is eliminated, in January 2020 the SOLARNET General Assembly decided that calls for ground-based telescopes should be open to the world. But then came the COVID-19 crisis which made the question moot for the 2020A call.

User statistics

The diagrams show the country of the affiliations for PI's and for all researchers from all accepted proposals.

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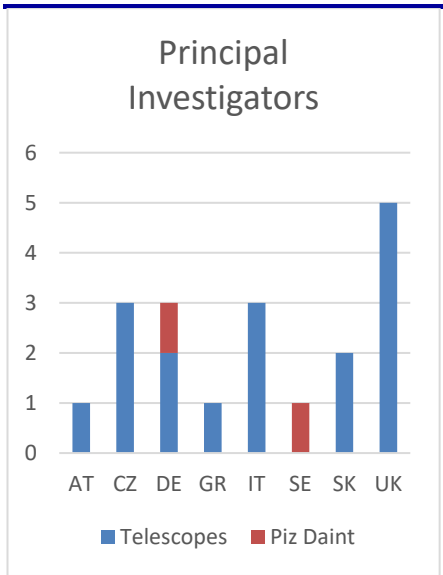

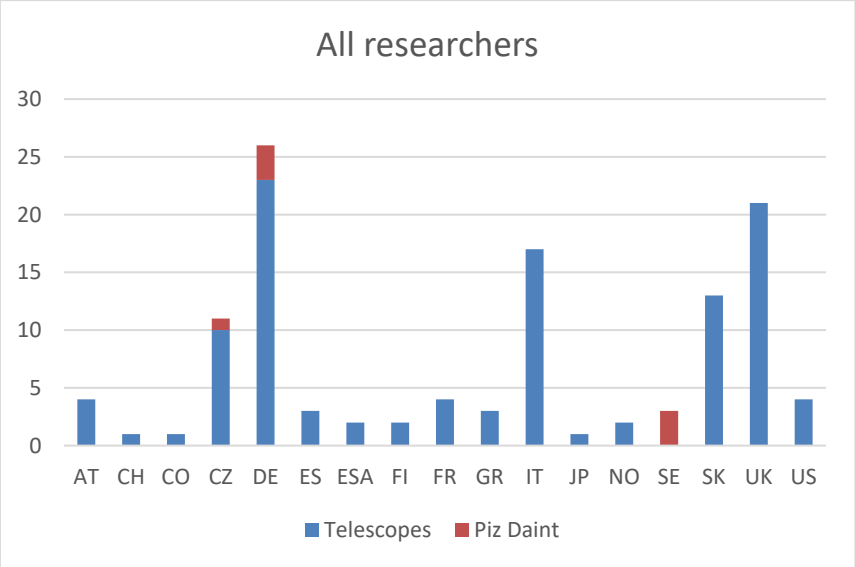

88% of PI's for the accepted telescope applications came from countries with no national access to major solar telescopes, that is countries other than France, Germany, Spain, or Sweden. The corresponding number for all researchers was 72%.

69% (9 out of 13) of PI's for the accepted projects had not been PI for a project at the respective facility before.

36% (5 out of 14) of the researchers visiting the telescopes in 2019 had not been observing at the respective telescope before. We note that it can be rational for the teams to send observers with some experience if such are available.

The ratio between male and female PI's was 65% to 35% for all submitted proposals and 63% to 37% for all accepted proposals.

Researchers visiting the telescopes are asked to fill in an evaluation form. The most relevant result is the grading of the infrastructure services which are summarised in **Table 2** below.

Please, assess the services provided by the infrastructure with respect to the following points: *1 = very poor, 2 = poor, 3 = average, 4 = good, 5 = very good*	Mean grade
Publicity in general concerning the opportunities for access offered under the SOLARNET Programme	4,5
Specific information provided by the telescope/ instrument operator on how to apply for access	4,6
Information provided by the SOLARNET Project Office on this EC funding opportunity	3,9
Instructions for the use of telescope and instrumentation after approval of observing proposal	4,5
Scientific support	4,5

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Technical support	4,8
Logistic support at the telescope (accommodation, office space, computing, libraries, etc.).	4,6
The intellectual environment	4,8
Overall appreciation of the services provided	4,8

Table 2: Grading of the infrastructure services from the user questionnaire.

These grades are in general good, but apparently a number of users were discontent with some aspects of information from the Project Office.
Based on the feedback, the project office has decided to develop an additional 'solarnet-family' email list incorporating the contacts of all recipients of SOLARNET support, thereby EU grant via the Trans-National Access, joint research and mobility programmes, so as to keep the young, particularly early-stage researchers adequately informed about the various calls and opportunities.

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Supported projects and researchers

The table below (**Table 3**) provides a detail account of the different researcher groups which have gained access to the different telescopes and Piz Daint Supercomputer with support from EU H2020 funding under SOLARNET's Trans-National Access programme. Besides taking care of the access costs per observing day (or node hours) for each of the installations, SOLARNET sponsored the travel, accommodation and subsistence for two members per research team to facilitate on-site observation during the entire duration of the observing period. The travel (economy class) and accommodation was organized directly by the project office. It is the responsibility of the group leader (Principal Investigator) to decide which members of the team will be supported. Regarding subsistence allowances (26 €/ day including the dates of travel), the national regulation of the coordinating institute (i.e. Germany) was followed. More information on travel details have been made available at the project website and serves as guidelines to the researchers applying for the grant (https://solarnet-project.eu/Transnational-Access-and-Service-Programme-TAS).

Researcher group (User Project number)	Serial no.	Role	Name of the Researcher	Employing Organization / Home Institution	Country of home Institution	Infra-structure	Dates of Observing campaign	Title of the proposal	Researchers per group whose travel was sponsored
2019A-SST.11	1	PI	Philip Lindner	Leibniz-Institute for Solar Physics	Germany	SST	6-24 April, 2019	Coupling between photospheric and chromospheric processes during the evolution of sunspots	P. Lindner & N. B. Gonzalez
2019A-SST.11	2	CoI	Nazaret Bello Gonzalez	Leibniz Institute for Solar Physics (KIS)	Germany	SST			
2019A-SST.11	3	CoI	Rolf Schlichenmaier	Leibniz-Institute for Solar Physics	Germany	SST			
2019A-SST.11	4	CoI	Anjali John Kaithakkal	Leibniz Institute for Solar Physics (KIS)	Germany	SST			
2019A-GREGOR.2	5	PI	Ryan Campbell	Queen's University Belfast	United Kingdom	GREGOR	3-13 May, 2019	Small-scale horizontal fields in	D. Kuridze, R. Campbell & C. Nelson.

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2019A-GREGOR.2	6	CoI	David Kuridze	Aberystwyth University	United Kingdom	GREGOR		the lower solar atmosphere	C. Nelson's accommodation & subsistence was arranged after D. Kuridze left to cover the the remaining days of the campaign.
2019A-GREGOR.2	7	CoI	Chris Nelson	Queen's University Belfast	United Kingdom	GREGOR			
2019A-GREGOR.2	8	CoI	Mihalis Mathioudakis	Queen's University Belfast	United Kingdom	GREGOR			
2019A-GREGOR.2	9	CoI	Aaron Reid	Queen's University Belfast	United Kingdom	GREGOR			
2019A-VTT.16	10	PI	Michal Sobotka	Astronomical Institute of the Czech Academy of Sciences	Czech Republic	VTT	2-12 June, 2019	Acoustic waves in the chromosphere	M. Sobotka & V. A. Azar
2019A-VTT.16	11	CoI	Vahid Abbasvand Azar	Astronomical Institute of the Czech Academy of Sciences	Czech Republic	VTT			
2019A-VTT.16	12	CoI	Michal Svanda	Astronomical Institute, Academy of Sciences of the Czech Republic and; Astronomical Institute, Charles University in Prague	Czech Republic	VTT			

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2019A-VTT.16	13	CoI	Jan Jurcak	Astronomical Institute, Academy of Sciences of the Czech Republic	Czech Republic	VTT			
2019A-VTT.16	14	CoI	Carsten Denker	Leibniz-Institut für Astrophysik (AIP) Potsdam	Germany	VTT			
2019A-GREGOR.10	15	PI	Sergio Javier Manrique	Astronomical Institute, Slovak Academy of Sciences	Slovakia	GREGOR	8 – 18 July 2019	Evolution of the vector magnetic field in an arch filament system	D. Utz & P. Zelina
2019A-GREGOR.10	16	CoI	Donimik Utz	IGAM/Institute of Physics, Karl-Franzens University Graz	Austria	GREGOR			
2019A-GREGOR.10	17	CoI	Peter Zelina	Astronomical Institute, Slovak Academy of Sciences	Slovakia	GREGOR			
2019A-GREGOR.10	18	CoI	Peter Gömöry	Astronomical Institute, Slovak Academy of Sciences	Slovakia	GREGOR			
2019A-GREGOR.10	19	CoI	Martin Benko	Astronomical Institute, Slovak Academy of Sciences	Slovakia	GREGOR			
2019A-GREGOR.10	20	CoI	Sergo Lomineishvili	Astronomical Institute, Slovak Academy of Sciences	Slovakia	GREGOR			

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2019A-GREGOR.10	21	CoI	Ada Ortiz	Institute for Theoretical Astrophysics, University of Oslo.	Norway	GREGOR			
2019A-GREGOR.10	22	CoI	Ilaria Ermolli	INAF, Istituto Nazionale di Astrofisica	Italy	GREGOR			
2019A-GREGOR.10	23	CoI	Zhi Xu	Fuxian Solar Observatory, Yunnan Observatories, CAS	China	GREGOR			
2019A-GREGOR.10	24	CoI	Christoph Kuckein	Leibniz-Institut für Astrophysik (AIP) Potsdam	Germany	GREGOR			
2019B-GREGOR.05	25	PI	Chris Nelson	Queen's University Belfast	United Kingdom	GREGOR	24th August – 3rd Sept, 2019	The signatures of photospheric flux cancellation throughout the solar atmosphere	C. Nelson & R. Campbell
2019B-GREGOR.05	26	CoI	Ryan Campbell	Queen's University Belfast	United Kingdom	GREGOR			
2019B-GREGOR.05	27	CoI	Mihalis Mathioudakis	Queen's University Belfast	United Kingdom	GREGOR			
2019B-GREGOR.02	28	PI	Marta Garcia Rivas	Astronomical Institute of the Czech Academy of Sciences	Czech Republic	GREGOR	3rd Sept – 13th Sept, 2019	Effects of inclined magnetic fields on magnetoconvective modes: granulation characterization	M Gracia Rivas & J. I. Campos Rozo

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2019B-GREGOR.02	29	CoI	Jose Ivan Campos Rozo	Karl-Franzens University of Graz	Austria	GREGOR			
2019B-GREGOR.02	30	CoI	Jan Jurcak	Astronomical Institute, Academy of Sciences of the Czech Republic	Czech Republic	GREGOR			
2019B-GREGOR.02	31	CoI	Nazaret Bello Gonzalez	Leibniz Institute for Solar Physics (KIS)	Germany	GREGOR			
2019B-GREGOR.02	32	CoI	Christoph Kuckein	Leibniz-Institut für Astrophysik (AIP) Potsdam	Germany	GREGOR			
2019B-GREGOR.02	33	CoI	David Korda	Astronomical Institute, Academy of Sciences of the Czech Republic	Czech Republic	GREGOR			
2019A-THEMIS.12	34	PI	Valeria Mangano	INAF	Italy	THEMIS	11th Oct – 15th Oct, 2019.	Mercury exosphere: study of its variable morphology through Na component	V. Mangano & D. Del Moro
2019A-THEMIS.12	35	CoI	Dario Del Moro	University of Rome Tor Vergata	Italy	THEMIS			
2019A-THEMIS.12	36	CoI	F Leblanc	LATMOS-Paris	France	THEMIS			
2019A-THEMIS.12	37	CoI	Christopher Schmidt	Boston University	United States	THEMIS			
2019A-THEMIS.12	38	CoI	J Zender	European Space Agency	France	THEMIS			
2019A-THEMIS.12	39	CoI	J Hovelin	University of Helsinki	Finland	THEMIS			

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2019A-THEMIS.12	40	CoI	Francesco Berrilli	Università Roma Tor Vergata (UNITOV), Rome	Italy	THEMIS			
2019A-THEMIS.12	41	CoI	S Massetti	INAF-IAPS Rome	Italy	THEMIS			
2019A-THEMIS.12	42	CoI	Bernard Gelly	Centre National de la Recherche Scientifique (CNRS)	France	THEMIS			
2019B-GREGOR.01	43	PI	Jack Jenkins	University College London	United Kingdom	GREGOR	22nd Oct – 1st Nov, 2019	Quantifying the evolution of magnetic flux prior to the onset of a solar eruption	D. Long, J. Jenkins & L. Green. L. Green's accommodation and subsistence was arranged after D. Long left to cover the remaining days of the campaign.
2019B-GREGOR.01	44	CoI	David Long	University College London	United Kingdom	GREGOR			
2019B-GREGOR.01	45	CoI	Casten Denker	Leibniz-Institut für Astrophysik (AIP) Potsdam	Germany	GREGOR			
2019B-GREGOR.01	46	CoI	Lucie Green	Mullard Space Science Laboratory	United Kingdom	GREGOR			
2020-SST.03	47	PI	Robert Fay-Siebenburgen	University of Sheffield	United Kingdom	SST	PI mode scheduled between 4th April – 12th	Signatures of Alfven waves in the lower solar atmosphere	Fay-Siebenburgen & Scalisi - arranged - but
2020-SST.03	48	CoI	Joseph Scalisi	University of Sheffield	United Kingdom	SST			

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2020-SST.03	49	CoI	Jiajia Liu	University of Sheffield	United Kingdom	SST	April, 2020. Later changed to service mode due to COVID-19: delivered 20th April – 28th April, 2020.		travel couldn't take place due to COVID 19 and travel restrictions imposed by UK institutes and Spanish authorities.
2020-SST.03	50	CoI	Chris J Nelson	Queen's University Belfast	United Kingdom	SST			
2020-SST.03	51	CoI	Noemi Zsámberger	University of Sheffield	United Kingdom	SST			
2020-SST.02	52	PI	Dominik Utz	IGAM/Institute of Physics, Karl-Franzens University Graz	Austria	SST	PI mode scheduled between 20th April – 28th April, 2020. Later changed to service mode due to COVID-19 delivered at the originally scheduled time.	Height tomography and temporal evolution of the velocity structure within and next to magnetic bright points	Travel for Utz & Kirkova was arranged, but had to be cancelled due to travel restrictions imposed by authorities of Austria and Spain.
2020-SST.02	53	CoI	Kilian Krikova	IGAM/Institute of Physics, Karl-Franzens University Graz	Austria	SST			
2020-SST.02	54	CoI	Jose Ivan Campos Rozo	IGAM/Institute of Physics, Karl-Franzens University Graz	Austria	SST			
2020-SST.02	55	CoI	Peter Gömöry	Astronomical Institute, Slovak Academy of Sciences	Slovakia	SST			
2020-SST.02	56	CoI	Sergio Javier Manrique	Astronomical Institute, Slovak Academy of Sciences	Slovakia	SST			

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2020-SST.02	57	CoI	Julius Koza	Astronomical Institute, Slovak Academy of Sciences	Slovakia	SST			
2020-SST.02	58	CoI	Christoph Kuckein	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany	SST			
2020-SST.02	59	CoI	Carsten Denker	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany	SST			
2020-SST.02	60	CoI	Horst Balthasar	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany	SST			
2020-SST.02	61	CoI	Meetu Verma	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany	SST			
2020-SST.02	62	CoI	Ioannis Kontogiannis	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany				
2020-SST.02	63	CoI	Peter Keys	Queen's University Belfast	United Kingdom	SST			
2020-SST.02	64	CoI	Luis Bellot-Rubio	Instituto de Astrofisica de Andalucía, Granada	Spain	SST			
2020-SST.02	65	CoI	David Orozco-Suarez	Instituto de Astrofisica de	Spain	SST			

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				Andalucía, Granada					
2020-SST.02	66	CoI	Santiago Vargas Dominguez	National University of Colombia, Bogotá	Columbia	SST			
2020-SST.02	67	CoI	Norbert Magyar	University of Warwick. Department of Physics	United Kingdom	SST			
2020-SST.02	68	CoI	Tanmoy Samanta	George Mason University	United States	SST			
SST-2020.1a	69	PI	Tziotziou Konstantinos	National Observatory of Athens	Greece	SST	13-17 Aug, 2019	Small-scale quiet-Sun swirling motions and their relation to the magnetic field dynamics	No travel was required to run the observation in service mode.
SST-2020.1a	70	CoI	Eamon Scullion	Northumbria University	United Kingdom	SST			
SST-2020.1a	71	CoI	Ioannis Kontogiannis	Leibniz Institute for Astrophysics, Potsdam (AIP)	Germany	SST			
SST-2020.1b	72	PI	Patrick Antolin	University of St Andrews	United Kingdom	SST	13-17 Aug, 2019	Multi-instrument Coordinated Observations of Coronal Rain	No travel was required to run the observation in service mode.
SST-2020.1b	73	CoI	Ramon Oliver	Universitat de les Illes Balears	Spain	SST			
SST-2020.1b	74	CoI	David Kuridze	Aberystwyth University	United Kingdom	SST			
SST-2020.1b	75	CoI	Matheus Kriginsky	University of the Balearic Islands, Palma	Spain	SST			

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SST-2020.1b	76	CoI	Chris J. Nelson	Queen's University Belfast	United Kingdom	SST			
SST-2020.1b	77	CoI	Lucia Kleint	Leibniz-Institut für Sonnenphysik (KIS)	Germany	SST			
2019A-SST.13c	78	PI	Meetu Verma	Leibniz-Institut für Astrophysik Potsdam	Germany	SST	13-17 Aug, 2019	Magnetic and flow fields of penumbral fine structure	No travel was required to run the observation in service mode.
2019A-SST.13c	79	CoI	Ilaria Ermolli	INAF, Istituto Nazionale di Astrofisica	Italy	SST			
2019A-SST.13c	80	CoI	Francesca Zuccarello	Università di Catania, Italy	Italy	SST			
2019A-SST.13c	81	CoI	Mariarita Murabito	INAF, Istituto Nazionale di Astrofisica	Italy	SST			
2019A-SST.13c	82	CoI	Salvo Guglielmino	Università di Catania, Italy	Italy	SST			
2019PD-Piz Daint.02	83	PI	Markus Schmassmann	Leibniz-Institut für Sonnenphysik (KIS)	Germany	Piz Daint	7 Jan - 31 Dec, 2020	Magneto-Convection in Realistic Sunspots with MURaM	No travel was required to run the codes at Piz Daint Supercomputer
2019PD-Piz Daint.02	84	CoI	Matthias Rempel	High Altitude Observatory, National Center for Atmospheric Research	United States	Piz Daint			
2019PD-Piz Daint.02	85	CoI	Nazaret Bello Gonzalez	Leibniz-Institut für	Germany	Piz Daint			

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				Sonnenphysik (KIS)					
2019PD-Piz Daint.02	86	CoI	Rolf Schlichenmaier	Leibniz-Institut für Sonnenphysik (KIS)	Germany	Piz Daint			
2019PD-Piz Daint.02	87	CoI	Jan Jurcak	Astronomical Institute, Academy of Sciences of the Czech Republic	Germany	Piz Daint			
2019PD-Piz Daint.01	88	PI	Sanja Danilovic	Stockholm University	Sweden	Piz Daint	7 Jan - 31 Dec, 2020	The physics of the solar chromosphere - confronting models with observations	No travel was required to run the codes at Piz Daint Supercomputer
2019PD-Piz Daint.01	89	CoI	Jorrit Leenaarts	Stockholm University	Sweden	Piz Daint			
2019PD-Piz Daint.01	90	CoI	Jaime de la Cruz Rodríguez	Stockholm University	Sweden	Piz Daint			

Table 3: Information on researchers receiving transnational access support.

Instructions have been given to all the researchers under the SOLARNET Trans-National Access programme that it is mandatory to acknowledge SOLARNET and thereby EU funding (https://solarnet-project.eu/Acknowledgement-SOLARNET-EU-funding). An exclusive publication list originating from the programme will be made available to the EU Commission in the future.

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Overview of the Access Provided

Infrastructure	Unit of Access	Minimum quantity of Access (A)	Access provided in reporting period 1 (Jan 2019 – June 2020)	Residual budget, to be provided during the remainder of the project
GREGOR	days	143	50	93
VTT	days	75	10	65
SST	days	85	23	62
THEMIS	days	80	14	66
Piz Daint	Node hours	1 500 000	N/A	N/A
SUNRISE 3	hours	11	0	11

Note: The number of provided Piz Daint node hours will not be known until after the end of the reporting period. The SUNRISE 3 flight is scheduled in year 2022.

Financial statement for travel and COVID-19 impact

During the first periodic report (RP1) a total of € 28 056.39 have been spent to support on-site observations of the researchers. This includes transport, accommodation and subsistence grants.
Travel Expenditure Jan 2019 – Dec 2019 = € 25 663.99
Travel Expenditure Jan 2020 – June 2020 = € 2 392.40

Two PI-mode observing campaigns had been scheduled at the SST in April 2020, namely user project numbers 2020-SST.03 and 2020-SST.02. However due to the outbreak of COVID-19 pandemic and restrictions imposed by governments and universities, the travel had to be cancelled. However, these two observing campaigns were successfully transformed into service mode operation. This was possible because the SST support astronomer, P. Sütterlin, had landed in La Palma just before the travel restrictions were enforced, and he undertook all the observations by himself. Data were obtained for both the PIs by the end of April and is being reduced for them by O. Andriienko from the Stockholm team.

From the project office side, necessary steps have been taken to minimize the financial damages and recover the travel amount as much as possible.
With regard to campaign 2020-SST.02, € 273.26 could be recovered until June 30, 2020 (end of the first periodic report, RP1). It is expected to get a refund of around € 802.14 flight tariff after June 2020 which will be reported in the next reporting period (RP2).
With regard to campaign 2020-SST.003, the airline offered partial re-booking only if any other flight of the same airline in the same route with R. Fay-Siebenburgen as the primary passenger until Oct 31st, 2020. These conditions are hard to fulfil given the present scenario. This travel costs will be claimed as direct costs under Force Majeure (Art. 51).

Summary of successes and challenges

The SOLARNET Trans-National Access programme serves a very important role in serving the European community of high-resolution solar physics with observational facilities. The challenges consist in keeping these facilities operational (e.g. covid-19) and competitive (e.g. new instrumentation) and sufficiently accommodating for new users (e.g. provide service observations and data reductions).

The Piz Daint supercomputer is a powerful facility and the research field is very dependent on computer modelling of the solar atmosphere. The first call showed that using Piz Daint is demanding and therefore we have increased the time between the first call and the proposal submission deadline.

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