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Version 1.1	July 15th, 2020	Updated data from INAF

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List of Abbreviations (if applicable)

IBIS	Interferometric BIdimensional Spectropolarimeter
IRIS	Interface Region Imaging Spectrograph
SDO	Solar Dynamics Observatory
SST	Swedish 1-m Solar Telescope
SVO	Solar Virtual Observatory
VSO	US Virtual Solar Observatory

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1. Introduction

WP10, Virtual Access Programme, provides access to the most demanded European Science Data Centres, providing data gathered by the solar satellites HINODE, IRIS, and the Solar Dynamics Observatory (SDO), as well as ground-based data from GREGOR, IBIS and SST (not previously offered through EC funding). A novelty in this project is the addition of access to numerical simulations, including synthetic observables, to enable close collaboration between observations and theory. This access to data for solar research will expand significantly the content of the Programmes for the high-resolution solar physics community supported in the past.
Provision of access is to the following infrastructure(s):

- **Hinode Science Data Centre Europe (Hinode SDC)**, operated by UiO, located in Oslo, Norway
- **Belgian Web Incessant Screening for SDO Mission (BE-WISSDOM)**, operated by ORB, located in Brussels, Belgium
- **Stockholm SST Archive**, operated by SU, located in Stockholm, Sweden
- **IBIS Data Archive (IBIS-A)**, operated by INAF, located in Rome, Italy
- **GRIS Data Archive**, operated by KIS, located in Freiburg im Breisgau, Germany

Statistics for access during period 1 (January 1st 2019 – June 30th 2020) is given for each of the infrastructures separately in the following.

2. Access statistics for January 1st 2019 – June 30th 2020

2.1 Hinode Science Data Centre Europe (Hinode SDC)

operated by UiO, located in Oslo, Norway

Access has been given to all data from the Japanese solar satellite *Hinode* and the NASA SMEX mission *Interface Region Imaging Spectrograph* (IRIS). The access numbers have been going down until 2018 for two reasons: the Hinode satellite has lost two of its instruments (broad-band filter imager and narrow-band filter imager) due to hardware failure and the IRIS satellite has expanded its search pages in the USA. We see an increasing trend again in 2019. Since the previous SOLARNET project (ended March 2017) work has concentrated on adding new datasets. Numerical simulations have been added for three Bifrost simulations with synthetic Mg II h&k profiles for one simulation. Preparations are ongoing to provide access to the SOLARNET Piz-Daint supercomputer simulations from the Access program (after the one-year proprietary period). A research software engineer was hired in January 2020 to work full-time on a new search-interface that will enable the addition of more datasets (from the Swedish 1-m Solar Telescope (SST) and ALMA).

The numerical simulations have been very popular. The simulations are organised as FITS files with one file per variable (e.g. temperature) per timestep. The access statistics for the numerical simulations are not yet logged with country of origin. The statistics for period 1 for the simulations are as follows:

Simulation name	Type of data	# downloaded files	Total volume
en024048_hion	Simulation data	9672	4539 GB
en024048_hion	MgII h&k synthetic obs	710	451 GB
en096014_gol	Simulation data	3939	158 GB
ch024031_by200bz005	Simulation data	408	688 GB
Total		**14279**	**5836 GB**

33 refereed papers have been published in the reporting period with data from these simulations.

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The total number of papers in refereed journals in the reporting period with data from Hinode is 96 and with data from IRIS is 92. It is impossible to identify the papers that have used a particular access provider since only the satellite data is acknowledged (Hinode/IRIS) and not the particular access point. However, it is clear from the distribution of download sites (see below) that the Hinode Science Data Centre Europe is one of the most popular data providers, thanks to the very efficient and flexible search engine.

Access statistics for Hinode/IRIS data (taken from http://sdc.uio.no/sdc/webstats):

Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	All of 2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	All of 2020	*Average*/Sum	
293	309	330	435	341	312	326	327	295	410	1037	345	3420	352	354	340	332	372	438	124	1715	*418*	Distinct hosts accessing site
112	107	127	107	131	106	102	103	111	118	134	76	912	113	119	93	105	106	142	34	556	*138*	Distinct hosts accessing search page
53	70	81	68	67	59	68	47	72	88	93	57	573	82	78	56	73	75	98	22	382	*104*	Distinct hosts accessing results pages
17	11	31	29	12	18	18	11	12	43	15	17	188	14	18	19	13	20	25	5	103	*101*	Distinct hosts downloading packaged files
3119	1283	1635	1172	756	1972	1945	461	12476	1371	4007	1042	31239	1119	1331	788	589	909	3251	322	8309	**312458**	Number of result page views
99%	99%	99%	99%	92%	98%	98%	99%	5%	92%	99%	99%	61%	95%	93%	99%	96%	95%	85%	98%	91%	*81%*	Fraction of result pages using thumbnails
75%	93%	92%	93%	91%	98%	96%	95%	5%	97%	97%	97%	57%	83%	97%	96%	78%	79%	71%	95%	81%	*77%*	Fraction of result pages using EPOCH
125	113	125	124	125	160	96	118	274	93	122	126	1601	152	177	198	340	123	56	12	1058	**155504**	Number of (IDL) client searches
64	218	126	49	37	18	49	17	50	324	57	25	1034	72	57	34	58	109	596	9	935	**18463**	Number of fits header views
285	39	66	173	31	93	73	32	87	146	4686	61	5772	32	133	67	26	90	179	12	539	**23202**	Number of single-file (GUI) downloads
1075	11443	736	9037	13815	196	4607	1282	177	14364	14414	113	71259	31823	67	3314	22898	0	45	0	58147	**3873968**	Number of single-file direct downloads
141	21	2370	57	91	85	14	20	27	7	19	3	2855	16	3	38	8	80	34	12	191	**27579**	Number of 'show details' views
1	0	5	2	0	7	3	3	2	1	2	0	26	1	0	6	0	0	3	0	10	**479**	Number of 'summarise search' views

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Jan-2019	Feb-2019	Mar-2019	Apr-2019	May-2019	Jun-2019	Jul-2019	Aug-2019	Sep-2019	Oct-2019	Nov-2019	Dec-2019	All of 2019	Jan-2020	Feb-2020	Mar-2020	Apr-2020	May-2020	Jun-2020	Jul-2020	All of 2020		Number of result page views, by affiliation
3119	1283	1635	1172	756	1972	1944	461	12476	1371	4007	1042	31238	1119	1331	788	589	909	3251	322	8309	**312452**	Grand total (SUM)
1913	1047	436	587	467	141	309	252	12092	723	541	411	18919	728	719	552	313	480	1234	252	4278	**156813**	European countries(*) (EUROPE)
70	53	194	200	104	229	183	77	149	87	2260	41	3647	62	27	30	109	65	147	4	444	**51707**	China (CN)
116	99	254	220	71	194	47	101	29	39	129	75	1374	54	49	81	150	316	1811	10	2471	**44953**	United States (US)
1461	446	15	236	79	26	170	91	81	66	43	3	2717	287	15	57	90	110	109	7	675	**27970**	Germany* (DE)
13	3	9	5	10	0	22	2	11744	7	51	15	11881	165	42	10	89	21	4	10	341	**27589**	Norway* (NO)
12	97	29	140	48	2	62	64	48	224	104	125	955	64	171	132	0	0	0	0	367	**24760**	United Kingdom (UK)
218	63	350	82	60	1369	1207	3	11	24	30	6	3423	159	1	14	0	5	0	0	179	**21543**	India (IN)
5	9	343	82	52	39	142	12	95	480	1024	26	2309	32	435	89	6	9	27	3	601	**19149**	Iran (IR)
29	17	4	10	54	31	7	19	3	131	28	33	366	50	298	228	58	139	373	23	1169	**11426**	Great Britain* (GB)
26	62	57	43	17	5	9	1	24	13	25	12	294	0	2	10	0	0	0	0	12	**10384**	Netherlands* (NL)
6	3	3	15	133	40	0	11	0	46	19	82	358	35	98	4	18	53	500	14	722	**7941**	Italy* (IT)
9	17	0	0	98	24	2	1	1	6	82	0	240	0	57	1	1	64	57	5	185	**6885**	Spain* (ES)
326	74	43	10	3	0	12	31	43	35	26	3	606	4	0	8	2	1	101	130	246	**6267**	France* (FR)
0	175	0	28	0	0	0	0	16	0	0	54	273	0	0	0	0	0	0	0	0	**6124**	Slovak Republic* (SK)
0	0	9	0	0	0	0	0	0	0	3	0	12	25	6	0	0	0	0	0	31	**5021**	Network (NET)
0	0	0	0	0	0	0	0	0	0	73	0	73	0	0	0	0	0	0	0	0	**4775**	Poland* (PL)
5	53	0	0	0	0	0	0	0	24	0	0	82	0	0	0	0	0	50	0	50	**4476**	Bulgaria* (BG)
0	0	0	0	0	0	0	0	11	4	49	22	86	51	13	0	23	5	9	0	101	**4303**	Greece* (GR)
0	0	0	0	0	0	0	0	21	17	20	7	65	1	0	0	5	1	2	0	9	**3696**	Japan (JP)
8	0	3	1	1	0	7	3	17	0	0	0	40	46	10	16	0	1	0	0	73	**2719**	Russian Federation (RU)
10	3	8	0	6	4	0	16	34	8	3	40	132	15	0	60	0	67	6	0	148	**2327**	Austria* (AT)
12	21	0	0	0	9	0	0	84	70	16	0	212	50	10	38	28	0	23	0	149	**2122**	Switzerland* (CH)
0	66	107	45	0	0	0	16	0	0	0	0	234	0	0	0	0	0	0	0	0	**2071**	Latvia* (LV)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2020**	Commercial (COM)
0	10	106	30	18	0	0	0	0	6	6	1	177	0	2	1	0	2	2	61	68	**1801**	Czech Republic* (CZ)
0	0	0	0	0	0	0	0	0	0	6	2	8	0	0	0	0	0	0	0	0	**1276**	Belgium* (BE)
0	0	0	0	0	0	0	0	0	2	0	0	2	4	0	0	3	0	0	2	9	**1172**	Ireland* (IE)
781	3	40	0	0	0	0	0	0	0	0	0	824	11	3	0	0	0	0	0	14	**1167**	Saudi Arabia (SA)
0	0	0	0	0	0	0	0	0	0	0	476	476	0	81	0	0	26	0	0	107	**1068**	South Korea (KR)
4	0	2	0	0	0	0	0	3	8	10	0	27	0	2	3	0	0	0	0	5	**796**	Sweden* (SE)
0	2	6	0	0	0	45	0	0	0	0	0	53	0	0	0	0	0	0	0	0	**779**	Canada (CA)
0	0	0	0	0	0	0	0	0	2	0	19	21	0	9	0	0	0	0	0	9	**721**	European Union* (EU)
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	**430**	Brazil (BR)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	**389**	Finland* (FI)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**290**	Denmark (DK)

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0	0	0	0	0	0	0	0	62	0	0	0	62	0	0	0	0	0	0	50	50	**288**	Unresolved (UNRESOLVED)
0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	3	**242**	Ukraine* (UA)
0	7	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	9	0	9	**233**	Australia (AU)
0	0	4	8	1	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	**231**	Serbia* (RS)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	0	0	18	**205**	Romania* (RO)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**168**	Argentina (AR)
0	0	49	17	0	0	23	0	0	0	0	0	89	0	0	0	0	0	0	0	0	**121**	Portugal* (PT)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	6	**99**	Turkey (TR)
0	0	0	0	0	0	0	0	0	71	0	0	71	0	0	0	0	0	0	0	0	**79**	Georgia* (GE)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	17	3	26	**78**	Colombia (CO)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**72**	Taiwan (TW)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**47**	Former Czechoslovakia (CS)
0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	**45**	Mexico (MX)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**43**	Croatia (HR)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**37**	International (INT)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**37**	Hungary* (HU)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**32**	South Africa (ZA)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**31**	United Arab Emirates (AE)
0	0	0	0	0	0	4	3	0	0	0	0	7	0	0	0	0	6	0	0	6	**28**	Hong Kong (HK)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**26**	Egypt (EG)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**25**	Lithuania* (LT)
8	0	0	0	1	0	0	10	0	0	0	0	19	0	0	0	0	0	3	0	3	**22**	Singapore (SG)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**21**	Tuvalu (TV)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**18**	Niue (NU)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**	Kazakhstan (KZ)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**11**	Peru (PE)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**9**	Israel (IL)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**	Algeria (DZ)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**	Estonia (EE)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**	Indonesia (ID)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**6**	Luxembourg* (LU)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**5**	Nepal (NP)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	Polynesia (French) (PF)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	Iraq (IQ)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	Non-Profit Making Organisations (ORG)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	Morocco (MA)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	Chile (CL)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	Kenya (KE)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**3**	Guyana (GY)
0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	**2**	Slovenia* (SI)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Thailand (TH)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Philippines (PH)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Costa Rica (CR)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Uruguay (UY)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Venezuela (VE)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	Syria (SY)
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	New Zealand (NZ)

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2.2 Belgian Web Incessant Screening for SDO Mission (BE-WISSDOM)

Operated by ORB, located in Brussels, Belgium

The WISSDOM data centre hosts two services: the SDO data centre (http://sdo.oma.be/) which provides access to AIA and HMI data from the SDO satellite and the Solar Virtual Observatory (SVO) (http://SOLARNET.oma.be/) . The SVO is still considered to be a prototype that is being brought into an operation state by the end of 2020 in the SOLARNET project as part of WP5. Because the SVO prototype is still changing and not performant enough to handle a large number of user requests we're not actively promoting its use and we're not collecting any web analytics on its use. Hence, in this report we will only present data from the SDO datacentre.

The data in the SDO data centre is made available to the public in different ways to accommodate the needs of different users:

- The web application SDO wizard (http://sdo.oma.be/wizard/) provides a user-friendly way to search and access the data;
- Through the US Virtual Solar Observatory (VSO), which is readily accessible from within IDL/SWW and within Python/SunPy;
- Full size SDO/AIA images at a one-hour cadence and reduced size AIA images at a 2 minutes cadence are directly available via ftp;
- SDO/AIA movies of the latest 24h are produced and made available and the latest quick look data can be fetched via http. These movies have also been made accessible through ESA's space weather portal (http://swe.ssa.esa.int/)

The statistics for the SDO data centre are collected with AWStats and are publicly available at http://sdo.oma.be/awstats/. AWStats has been set up to collect statistics on the server for http and ftp. Data provided through IDL/SWW and Python/SunPy is part of http collection.

The definitions of Unique visitors, Number of visits, Pages, Hits and Bandwidth has not been changed from the standard AWStats configuration.

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Web analytics data of the SDO data center

SDO data centre statistics for the html provision for 2019 and the first half of 2020:

Month	January	February	March	April	May	June	July	August	September	October	November	December	Total
Unique visitors	863	729	821	1,049	939	874	744	728	750	723	882	730	**9,832**
Number of visits	1,12	983	1,044	1,362	1,316	1,124	1,024	948	962	971	1,385	960	**13,199**
Pages	20,005	36,186	29,915	24,675	26,845	194,03	42,965	34,12	34,427	88,373	230,978	160,714	**923,233**
Hits	62,417	86,338	77,111	61,769	80,834	229,911	76,032	51,991	68,093	127,905	273,565	197,19	**1,393,156**
Total Bandwidth	131.16 GB	405.30 GB	232.09 GB	251.89 GB	203.23 GB	985.37 GB	309.64 GB	285.20 GB	785.11 GB	802.28 GB	2243.30 GB	1868.46 GB	**8503.04 GB**

Month	January	February	March	April	May	June	Total
Unique visitors	792	631	679	656	643	656	4,057
Number of visits	1,3	807	972	976	940	950	5,945
Pages	119,456	7,068	13,936	12,423	14,919	21,666	189,468
Hits	168,08	65,546	206,344	102,984	20,992	26,144	590,09
Total Bandwidth	1121.86 GB	80.94 GB	2781.04 GB	288.49 GB	346.36 GB	196.77 GB	4815.46 GB

SDO data centre statistics for the ftp provision for 2019 and the first half of 2020:

Month	January	February	March	April	May	June	July	August	September	October	November	December	Total
Unique visitors	35	49	101	96	97	226	191	261	276	135	127	69	**1,663**
Number of visits	788	677	1,396	1,566	1,517	835	1,061	1,231	1,039	762	635	572	**12,079**
Pages	2,092	3,33	12,208	10,11	14,108	10,268	12,159	14,502	24,849	6,898	14,043	1,193	**125,76**
Hits	2,092	3,33	12,208	10,11	14,108	10,268	12,159	14,502	24,849	6,898	14,043	1,193	**125,76**
Total Bandwidth	8.13 GB	8.79 GB	358.21 GB	65.85 GB	103.33 GB	57.02 GB	80.36 GB	78.25 GB	83.27 GB	37.33 GB	30.78 GB	10.91 GB	**922.22 GB**

Month	January	February	March	April	May	June	Total
Unique visitors	65	42	30	38	64	61	**300**
Number of visits	944	721	675	401	1,022	585	**4,348**
Pages	10260	28870	22021	10954	12508	23287	**107,9**
Hits	10260	28870	22021	10954	12508	23287	**107,9**
Total Bandwidth	53.63 GB	124.39 GB	94.99 GB	51.12 GB	71.91 GB	64.06 GB	**460.10 GB**

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Geographical distribution of users

SDO data centre geographical distribution of the users for the html provision for 2019 and the first half of 2020:

2019

Domains/Countries	Pages	Hits	Bandwidth
Unknown	402,461	411,159	3496.37 GB
USA Government	265,367	265,53	1311.46 GB
United Kingdom	219,364	219,42	2705.73 GB
Greece	12,024	12,09	65.23 GB
Belgium	9,649	422,611	439.85 GB
Commercial	2,732	18,044	28.70 GB
Network	2,26	12,939	29.24 GB
USA Educational	1,424	1,457	12.64 GB
Germany	1,309	9,693	15.87 GB
Brazil	1,254	1,595	761.19 MB
Others	5389	18618	397.19 GB

2020

Domains/Countries	Pages	Hits	Bandwidth
Unknown	126,498	129,75	1077.78 GB
United Kingdom	45,137	45,148	483.81 GB
Commercial	12,691	16,128	129.76 GB
Greece	968	1,174	4.85 GB
Network	787	56,558	1465.55 GB
Belgium	462	330,058	151.56 GB
Non-Profit Organizations	393	394	31.46 MB
France	333	1,008	2.95 GB
Brazil	314	346	43.13 MB
Mexico	139	2,449	3.79 GB
Others	1746	7077	1495.34 GB

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SDO data centre geographical distribution of the users for the ftp provision for 2019 and the first half of 2020:

2019

Domains/Countries	Pages	Hits	Bandwidth
Italy	69,278	69,278	271.64 GB
Commercial	26,378	26,378	276.02 GB
Unknown	21,008	21,008	8.48 GB
France	5,075	5,075	316.87 GB
Germany	2,55	2,55	33.58 GB
Switzerland	647	647	5.81 GB
Hungary	614	614	9.35 GB
Sweden	91	91	87.40 MB
Unknown	63	63	0
Belgium	20	20	292.94 MB
Others	36	36	110.34 MB

2020

Domains/Countries	Pages	Hits	Bandwidth
Italy	86,679	86,679	339.85 GB
Unknown	8,22	8,22	13.88 GB
Commercial	7,639	7,639	99.11 GB
Belgium	5,159	5,159	5.02 GB
Greece	115	115	1.74 GB
Russian Federation	53	53	380.89 MB
China	14	14	0
Sweden	7	7	34.30 MB
Brazil	7	7	64.75 MB
Germany	3	3	9.33 MB
Others	4	4	19.86 MB

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2.2 Stockholm SST Archive

operated by SU, located in Stockholm, Sweden

All SST data provided under the SOLARNET access programme will be stored in the Stockholm SST Archive and be made available through the SVO hosted by ORB. During period 1, mechanisms have been put in place with the help of ORB to enable the import of science-ready SST/CRISP and SST/CHROMIS data sets. With the help from UiO, metadata have been defined to flag proprietary/non-proprietary status of a data set. For example, data collected under the SOLARNET access programme are proprietary for one year after it has been delivered to the requesters. During this period, it will be possible to find the metadata with information on the proprietary status and when the data become publicly available. Work has also been carried out to determine priorities for what data to upload, as well as procedures for deciding the proprietary status of data sets and for responding to download requests for proprietary data. Since there is not yet any public data in the archive, there has been no virtual access provided (will commence in period 2).

2.3 IBIS Data Archive (IBIS-A)

operated by INAF, located in Rome, Italy

New data have been added to the archive (about 30 TB) and access has been provided through a web-interface. Users have been supported for calibration and analysis of the datasets. The availability of the data archive has been advertised through a poster contribution at the 1st SWICO meeting held in Rome on 12-13 February 2020.

Amount of access provided (March 2019-June 2020):
420

Origin of the access:
USA: 83
Italy: 82
Germany: 6
China: 9
Egypt: 3
Canada: 2
Russia: 2
Spain: 2
France: 1
Iraq: 1
Japan: 1
Korea: 1
UK: 2

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2.4 GRIS Data Archive

operated by KIS, located in Freiburg im Breisgau, Germany

An improvement that is foreseen during the SOLARNET project, is the full automatization of calibration and injection of data into the archive as well as the computation of higher level data products to provide the scientist with science ready data as quickly as possible. An improved query system that allows the user to search for previously defined data tags (e.g. sunspot or faculae) is planned for. Additionally, data from second generation GREGOR instruments, such as the GRIS Integrated Field Unit (IFU), shall be processed and archived in the near future.

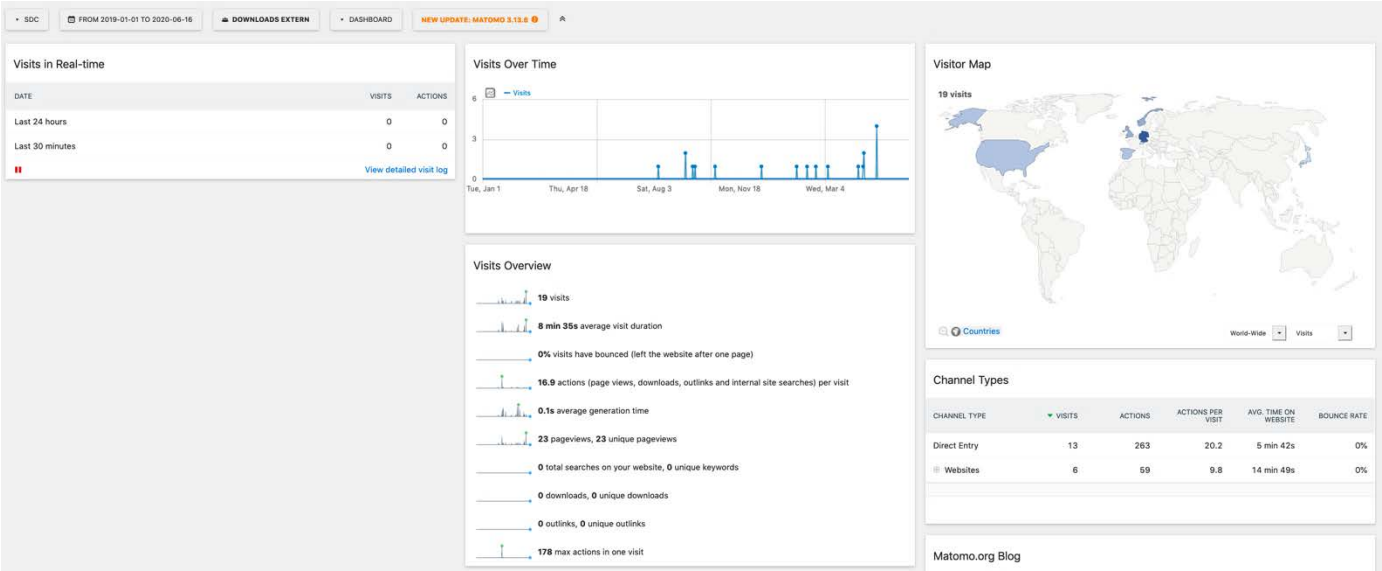
During period 1 the following work has been carried out:

- An importer has been developed that by now can ingest most of the L1 data from different (GRIS, BBI, LARS, ChroTel) instruments in an automated way.
- The query system has been improved. Now data are available via sdc.leibniz-kis.de
- The ingestion of IFU data is worked on but not completed yet.
- Automated tagging of solar features has not been implemented yet.
- An algorithm for the automated selection of data based on data quality for the ChroTel telescope (OT) has been developed.
- In May 2020 first tests started to run VFISV inversions (i.e., creation of L2 data) in an automated manner over all GRIS archived data.

Currently the total volume is 22 TB of L0 and L1 for the GRIS, BBI, LARS and ChroTel instruments.

The virtual access has been announced in the SolarNews and presented in conferences.

One paper acknowledges the use of the archive: A&A 638, A25 (2020)
https://doi.org/10.1051/0004-6361/202037716
The statistics over the access is very poor (see picture below) but automatic procedures will soon be implemented.



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