

Agenda of the 17th WRCP/BSRN Scientific Review and Workshop

June 27-30, 2022, Ispra (VA), Italy.

Version 2022-06-29

All times in CEST: <https://time.is/CEST>

Where: European Commission Joint Research Centre
Bld 36 Modules A/B and virtual
No registration required for remote attendance



Monday – 27 June 2022 (Webex link)

11:00 – 14:00 Registration/Ice Breaker/Buffer Lunch

Registration desk in hallway/ Building #36

14:00 – 14:10	Lanconelli, Riihimaki EC JRC, NOAA/CIRES	Setup and BSRN Project Manager Greetings	
14:10 – 14:30	L'Ecuyer WISC	GEWEX GDAP status and BSRN	R
14:30 – 14:50	Oakley WMO	BSRN in the wider WMO GCOS community	R
14:50 – 15:10	Marin Ferrer, Kulis EC JRC	EC JRC D.6 Welcome and Info	
15:10 – 15:30	Dowell, Gobron EC JRC	JRC Knowledge Center for Earth Observation (KCEO)	
15:30 – 15:50	Wild Martin ETH (keynote presentation)	How BSRN contributed to the global energy balance estimates in the IPCC assessment report	K

15:50 – 16:10 Coffee break

16:10 – 16:30	Lanconelli, Riihimaki	BSRN Project Management report, challenges, perspectives	
16:30 – 16:50	Driemel AWI	WRMC update – status, challenges, tasks	
16:50 – 17:00 (10 min)	Driemel, Lanconelli, Vuilleumier, Nyeki AWI, EC JRC, Meteoswiss, PMOD/WRC	GCOS-174 Update (w.r.t. LR4000)	
17:00 – 17:20	Hodges NOAA	Manual Update Status of the affairs	R
17:20 – 17:40	Sepúlveda Araya Edgardo USACH	NEW STATION: Andes East of Santiago, Chile (rescheduled on Day 2 – 10:50-11:10)	R
17:40 – 18:00	all	Preliminary Discussion	



Tuesday – 28 June 2022 ([Webex link](#))

Review pending sites and new sites

9:30 – 9:40	Ahn Seohee KOPRI	Pending station (2020): Terra Nova Bay, Antarctica	R
9:40 – 10:00	Ohtake Jun & Sasaki Shun Japan Meteorological Agency	Status report of Abashiri (ABS, 2020 active station) and the other stations operated by JMA	R
10:00 – 10:10	Milidonis Kypros The Cyprus Institute	Pending station (2020): Cyprus	R
10:10– 10:30	Meloni Daniela ENEA	NEW STATION: Lampedusa, Italy	R
10:30 – 10:50	Gill Michael MET	NEW STATION: Valentia Observatory, Ireland	R
10:50 – 11:10	Sepúlveda Araya Edgardo USACH	NEW STATION: Andes East of Santiago, Chile	R

11:10 – 11:20 *Coffee Break*

Operations and analysis

11:20 – 11:40	Badosa Jordi SIRTA-LMD, IPSL	Solar energy research topics and results at SIRTA, Paris region	
11:40 – 12:00	Mabasa Brighton WeatherSA	Activities at the South African Weather Services using BSRN data as a reference	R
12:00 – 12:20	Mathijssen Tiemo KNMI	Pyranometer intercomparison at the BSRN site in Cabauw, the Netherlands	R
12:20 – 12:40	Pavanello Diego EC JRC	JRC International Spectroradiometer Intercomparison (ISRC) snapshots 2019-2022	

12:40 – 14:00 *Lunch Break (buffet)*

14:00 – 14:20	Delsaut Mathieu Univ Reunion	An empirical approach for determination of coefficients from Long & Shi automated quality assessment, applied on RUN and PAL stations	
14:20 – 14:40	Ferreira Lucas ETH	Validation of a daily transmittance-based clear-sky detection method with BSRN observations	R
14:40 – 15:00	Nozomu Ohkawara JMA	Spectral radiation measurements using the ground-based spectral radiometer system for albedo and flux (GSAF) in Ny-Ålesund (NYA)	
15:10 – 15:30	André R. Gonçalves, Enio Pereira INPE	BSRN data for assessing the impact of biomass burning aerosols on clear-sky transmittance in the Brazilian Cerrado	R
15:30 – 15:50	Knap Wouter KNMI	BSRN Quality Control – Global minus Sum: what can we learn from trends?	

15:50 – 16:10 *Coffee Break*

Ocean (Towards an OcBSRN?)

16:10 – 16:30	Riihimaki Laura NOAA	Update on Development of Ocean Radiometer Best Practices	
---------------	--------------------------------	--	--

16:30 – 16:50	Robert Weller WHOI GCOS/OOPC	Measuring Incoming Shortwave and Longwave Radiation at Sea	R
16:50 – 17:30	Chair: Riihimaki	Discussion on presented sites, and review of the new site engagement process, including the extension of BSRN to the ocean environment (it will continue the last day)	



Wednesday, 29 June 2022 ([Webex link](#))

Data Quality and Uncertainty, References

9:30 – 9:40	Morel Beatrice Reunion Univ	Status of RUN station (Reunion)	
9:40 – 9:50	Stefan Wacker DWD	Status of LIN station (Germany)	
9:50 – 10:10	Knap Wouter KNMI	Progress WG Data Quality (2018 – 2022)	
9:55 – 10:10	Lanconelli Christian EC JRC	An incomplete summary of BSRN performances, challenges towards VAP, the RAW data BSRN system, early data release and centralized pre-processing, the BSRN storage folders ... intro to one or more posters/documentation (will be reported on VAP WG slot last day/overlapping matter)	
10:10 – 10:30	Vuilleumier Laurent Meteoswiss	Radiation Reference Update (WMO Expert Team on Radiation References)	
10:30 – 10:50	Nyeki Stefan and Groebner Julian PMOD/ WRC	Extending the Calibration Traceability of Longwave Radiation Time-Series (ExTrac)	R
10:50 – 11:10	Saint-Drenan Yves-Marie MINES ParisTech	A visual support for monitoring the plausibility of solar radiation measurements	R

11:10 – 11:30 Coffee Break

11:30 – 11:50	Taiping Zhang NASA	Application of the BSRN Data in Validating the GEWEX SRB Data: Quality-Control and Resulting Available Monthly Means	
11:50 – 12:10	Saint-Drenan Yves-Marie MINES ParisTech	An operational processing chain for the collection, harmonization and visualization of in-situ measurements following FAIR principles	R
12:10 – 12:40	Chairs: Knap/Vuilleumier	Discussion on reference, traceability, archive revision (will continue the last day)	

12:40 – 14:00 Lunch break (buffet)

Remote sensing applications / RE studies / VAP/ Climate (mixed to account for US timezones)

14:00 – 14:20	Chtirkova Boriana ETH	Is natural variability interfering with the shortwave trend I observe?	R
14:20 – 14:40	Yang Dahzi Harbin Institute of Technology	A Concise Overview on State-of-the-art Solar Forecasting	R
14:40 – 15:00	Trentmann Jorg DWD	Using BSRN data for the evaluation of the satellite-derived surface radiation climate data records from the EUMETSAT CM SAF	R
15:00 – 15:20	Urraca Valle Ruben EC JRC	BQCmethod: a visual tool to quality control global horizontal irradiance with satellite data	
15:20 – 15:40	Rasmus Jensen Adam BYG DTU	Worldwide benchmark of modeled solar radiation data	R
15:40 – 16:00	Kraas Birk CSPSERVICES	Solar resource measurement campaign in West Africa	R

16:00 – 16:20 Coffee Break

16:20 – 16:40	Zhuosen Wang NASA	CEOS LPV and albedo product validation	R
16:40 – 17:00	John Augustine NOAA	Has Brightening Ceased?	R
17:00 – 17:20	Chris Cox NOAA	Melt onset at MOSAiC	R

Discussion on these sessions will be held during the final day (14:00+) ... as we had an intense day and a group dinner is coming ...

RE Chairs: Badosa/Pereira

VAP/Climate: Wild/Lanconelli



Group dinner (20:30 - 22:30) @Hotel Restaurant Lido, Angera (Varese)



Thursday, 30 June 2022 ([Webex link](#))

Training session 9:30 – 11:10. Examples on some BSRN and third parties QC tools (but not only) developed during the last years

09:30	Driemel Amelie AWI	BSRN Toolbox	The official BSRN tool to produce quality flags. All BSRN station scientists should have used it somehow! Isn't it?	
09:50	Knap Wouter KNMI	bsrn-qc.net	A pilot effort developed by Wouter to produce quality check plots and flags, with a awesome table report and temporal trends. Just ask Wouter to scan your BSRN data.	

10:10	Yang Dazhi Harbin Institute of Technology	SolarData (R package)	An R package to produce QC based on Long and Shi QC tests	R
10:30	Delsaut Mathieu Univ Reunion	Pybsrnqc (python module)	A library for BSRN Quality Control (QC) https://pypi.org/project/pybsrnqc/	
10:50	Adam Rasmus Jensen DTU	Pvlib	pvlib is a Python library with the main aim of modeling solar energy systems. However, it contains a submodule for retrieving solar radiation data, including BSRN, SURFRAD, NREL NSRDB, PVGIS, etc.	

11:10 – 11:20 Coffee Break

Working group reports (11:20 - 12:40, 16:00 - 17:00)

11:20	Stefan Wacker	Infrared	
11:35	Laurent Vuilleumier	Uncertainties	
11:50	Wouter Knap	Data Quality	
12:05	L Riihimaki, V Vitale	Ocean	
12:20	C Lanconelli, L Riihimaki	Value Added Products	
Afternoon			
16:10	Z Wang	Albedo/Satellite	R US
16:25	Enio Pereira	Use of BSRN in SRE	R BR
16:40	Kathy Lantz	Spectral/UV	R-US
16:55	Allison McComiskey	Broadband	R-US

12:40 – 13:45 Lunch break (buffet)

13:45 – 14:45 Visit to JRC ESTI Laboratory (Hosted by Diego Pavanello)

14:45 – 15:50 Final discussion, way forwards and wrap up (all)

1. New site evaluation (**with poll**)
2. LR4000 mandatory soon (are we ready?)
3. Centralized QC tools and Quality Flag files
4. Managing Data gaps needs guidelines
5. Review of the Timeliness (to define inactive/pending/closed flagging)
6. Value Added Products (Level 2 data to be released)
7. Centralized reanalysis for LW and SW reference change
8. Pangaea to OSCAR/WIGOS metadata
9. The role of WCRP/GEWEX BSRN network in the GCOS environment (a contributing network)
10. Netcdf format data release (defining layers accordingly to ECMWF CF standards, needs coordination with RE community which is already implementing this approach for the benefit of the wider user community - FAIR)
11. Engaging with Space Agencies and Services (see Copernicus/GBOV example)
12. Covering geographical gaps (liaise with RE industry in Africa/South America)
13. BSRN Governance
14. Next meeting (WCRP climate Conference Asia 2024 – April/May a good option to consider, other?)
15. ...

15:50 – 16:10 Coffee Break

16:10 – 17:30 session continues with the second slot of WG reports (see table above), final remarks and Greetings



Poster and presentation (pdf) folders

Mahery-Henintsoa Andriamahefa et al	SIRTA-LMD/IPSL	Radiometric cube for accurate estimation of direct and diffuse radiation: calibration, modeling and validation.
Johan Parra and Jordi Badosa	SIRTA-LMD/IPSL	SIRTA's PAL Surface radiation station: status and news
Geyer Florian	ZAMG	Status of Sonnblick BSRN station
Angelo Lupi	CNR	Exploiting "ship of opportunities" activities: planning of a radiometric network in high latitude areas
Fred Denn	NASA/LARC	Status of Langley Research Center (LRC) BSRN site
Bryan Fabbri	NASA/LARC	Status of Granite Island, Michigan (GIM) BSRN site
Rosa Garcia	IARC-AEMET	Status of IZA BSRN site
Beatrice Morel	Univ Reunion	Estimation of cloud fraction from the radiation measurements of Reunion BSRN station
Roberto Bonifaz	UNAM	Status of Selegua (SEL) BSRN station, Mexico
Stefan Wacker	DWD	Status of Lindenberg (LIN) BSRN Station, Germany
<i>Still Populating it ... Just send an e-mail to Christian</i>		
...		

Table 1: List of posters