SOBHAN KUMAR KOMPALLI

Contact Information Space Physics Laboratory (SPL),
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Areas of Research

- Atmospheric aerosols, their optical, radiative and microphysical properties, and climate impact.
- Observations and development of experimental facilities for studies on aerosol microphysical aspects.

Academic Qualifications

- Presently pursuing PhD in Atmospheric Sciences (since December 2013)
  Title: "INVESTIGATIONS ON AEROSOL MICROPHYSICAL PROPERTIES OVER DISTINCT ENVIRONMENTS OF INDIA AND ADJOINING OCEANIC REGIONS"
- M.Sc. Physics (2006) (C.G.P.A. 8.4 /10) **(Topper in University)**
  Pondicherry University, Pondicherry, India.
- B.Sc. (Mathematics, Physics, Chemistry) (2004) (89.4%) **(University Top-10)**
  Acharya Nagarjuna University, Guntur, India

Research Positions

Jan. 2017 - till date	Scientist 'SE'	SPL, VSSC, ISRO, Thiruvananthapuram
Jan. 2012 - Dec. 2016	Scientist 'SD'	SPL, VSSC, ISRO, Thiruvananthapuram
Feb. 2008 - Dec. 2011	Scientist 'SC'	SPL, VSSC, ISRO, Thiruvananthapuram
Sep. 2007 - Jan. 2008	Research Fellow	Space Application Centre, ISRO, Ahmedabad
Jul. 2006 - Apr. 2007	M.Sc. Lecturer	Dharma Apparao College, Nuzvid, A.P.

Personal Details

Date of Birth: 10- May-1984 (Age: 35) Sex: Male
Marital status: Married Nationality: Indian

Publications

- Publications in refereed journals – **26 (+3 under review)**
- National and International proceedings/presentations: **41**
- Scientific and Technical reports**: 06**

Awards and honors

- ***Best Paper Award*** (Gold Medal) in 'Aerosols and Monsoon' theme, for the paper entitled 'Springtime enhancement in aerosol loading over the high altitude Himalayas: Implications to regional climate', International Tropical Meteorology Symposium (INTROMET-2014), Chennai, February, 2014.
- ***Best Paper award*** in Space based meteorology, Oceanography and Geopshere-biosphere interactions, for paper entitled "Fine and Ultrafine particles at near Free Tropospheric Environment in Trans-Himalayas: Results from RAWEX", National Space Science Symposium, Tirupati, February 14-17, 2012.
- Research Fellowship of the Indian Space Research Organization (2007-08).
- ***University topper*** in M.Sc., B.Sc. and School topper in SSC.
- National level rank in M.Sc. entrance test; GATE qualified.
- Numerous prizes at school, college & university level for elocution, essay writing, debate, quiz etc.

Member in the Professional bodies

- Life Member, Indian Meteorological Society (IMS).
- Life member, Kerala Academy of Sciences (KAS), Trivandrum.
- Life member, Indian Aerosol Science and Technology Association (IASTA).
- Life member, Indian Space Scientist Association (ISSA).

Deputation Abroad

- Deputed to the University of Manchester, United Kingdom for training on data analysis of the SP2 and the ACSM aerosol instrumentation as part of the South West Asian Aerosol Monsoon Interaction (SWAAMI) (Indo-UK joint project) during June 17-25, 2017.
- Deputed to the University of Manchester, United Kingdom for training on aerosol instrumentation as part of the South West Asian Aerosol Monsoon Interaction (SWAAMI) experiment (Indo-UK joint project) during February 28- March 19, 2016.
- Deputed as a member of the 4th batch for year 2012 of Indian Scientific Expedition to Arctic (Ny Alesund, Svalbard), Norway, during Oct 04 - Nov 12 as part of the SPL's Polar Research Program.

Major Responsibilities

Scientific and technical activities

- **Scientific Investigator:** 3 national projects managed by the SPL under the ISRO-Geosphere-Biosphere Program, namely the **ARFI** (Aerosol Radiative Forcing over India), the **RAWEX** (Regional Aerosol Warming EXperiment) and the **ICARB** (Integrated Campaign for Aerosols, gases and Radiation Budget) which aim to understand the regional aerosol characteristics and their radiative impacts through network of observatories (ARFINET) and multi-platform (aircraft, ship and balloon based) field experiments covering distinct environments.

- **Scientific Investigator** in the Indo-UK collaborative **SWAAMI** (South West Asian Aerosol Monsoon Interaction) experiment. Participated and took lead in the aircraft based and ground (supersite) based aerosol observational studies.
- **Responsible** for the design and in-house development the **AHI** (Aerosol Humidograph Instrument) for the studies on aerosol hygroscopic properties. It is *a first of its kind* instrument over the Indian region.
- **Responsible** for the design and development of Isokinetic aerosol sampling inlets at the SPL. **Responsible** for designing the setup with membrane based dryer and humidifier modules.
- **Principal Investigator**: 'Aerosol microphysics properties and life cycle processes' theme of the ARFI and ICARB projects.
- **Focal point**: ARFINET stations at tropical coastal location, Thumba and Hanle in the western Himalayas (the highest aerosol observatory in the country @ 4520m asl).

Field experiments

- The ICARB-2018 ship based cruise observations over the northern Indian Ocean and South Arabian Sea during the winter [2018]
- Aircraft based observations carried out over different regions over India as part of the SWAAMI experiment during the pre-monsoon [2016]
- Aerosol life cycle studies with an emphasis on ultrafine particle formation processes from high altitude forested location; Ooty in southern India [2014, 2015]
- Aircraft, balloon borne and field experiments from various ARFINET stations and different geographical regions as part of the RAWEX – 2013 over Indian region [2013]
- Ship-cruise based observations over Bay of Bengal during summer monsoon [CTCZ-2009]
- A balloon-borne field experiment using a 'High Altitude Black Carbon Aethalometer' for vertical profiles of black carbon (BC) up to 10 km altitude [RAWEX-2011]
- Indian Scientific Expedition to Arctic (NyAlesund, Svalbard), Norway, to make measurements on aerosol characteristics as part of the SPL's Polar Research Program [2012]
- Tethered balloon experiments for BC altitude profiles during a solar eclipse [2011]

Academic Responsibilities

✓M.Sc. student projects: **4**;

✓Reviewer of journals: Journal of Earth System Science; Atmospheric pollution research

Scientific Contributions

- *First ever* observations of mixing state of black carbon over India and its temporal variation highlighting thickly coated BC over the IGP outflow [ACP 2020; ACP 2019a]
- Proposed *new mechanism* for new particle formation over the Indian Ocean [Atmos. Env. 2020]
- *First ever* vertical characteristics of submicron aerosols over the Indian region highlighting the dominance of elevated sulfate layers [ACP 2019b]

- Scientific pursuance of the long-term and unique data from the Himalayan aerosol observatory at Hanle *(which completed 10 years of operation)* brought out ***first of its kind*** results:
  a) Fine and ultrafine particle concentrations, new particle formation over near free-tropospheric Himalayan location and mechanisms responsible for it [Atmos. Env. 2014; Ann. Geo. 2014; IASTA 2014; JIE 2012a, JGR 2011a]
  b) Spring time enhancement is absorbing aerosol loading, its inter-annual variability and responsible process over the Himalayas [Curr. Sci. 2016, JIE 2012c]
  c) Physical and optical properties of aerosols over the pristine background Himalayas [Atmos. Env. 2014; Aeolian Res. 2014; JIE 2012b]
  d) BC measurements over Hanle confirmed the presence of significant amount of absorbing BC in Himalayas during spring than winter. This finding has important climatic implications in view of the regional warming due to elevated aerosol layers which can influence south Asian monsoon and glacier retreat [JGR 2011b].
- From the scientific investigation of *aerosol size distributions over a broad regime* from the tropical coastal station Trivandrum ***proposed a mechanism*** for ultrafine particle bursts; explained particle formation, growth rate and seasonal influence on their size distributions [Sci. of Tot. Envi. 2016; Ann. Geo. 2014]
- Ultrafine particle bursts over a high altitude forested location (Ooty) over the western Ghats and meteorological dependence on the NPF highlighting the mesoscale processes [JASTP 2018]
- In a *first of its kind* study over Central India, using ~18 months of observations, quantified the association between aerosols and atmospheric boundary layer [Atmos.Res. 2014]
- Observational evidence for the rapid response of atmospheric concentration of Black Carbon (BC) to anthropogenic activities [Atmos. Sci. Let. 2013]
- Investigated seasonal changes in BC over Bay of Bengal using *multi-campaign measurements* and influence of spatio-temporally varying BC sources [Atmos. Env. 2013]
- Using long term (~25 years) data, brought out the phenomenal increase in aerosol loading over the Indian region and significant share of the anthropogenic fraction to it [JGR 2013]
- The impact of a dust episode on aerosol mass loading from the Himalayan site and the processes responsible for it [Aeolian Res. 2014].

Expertise of the following aerosol instruments

Scanning mobility Particle Sizer (Grimm, Germany and TSI, USA); Single Particle Soot Photometer (DMT, USA); Aethalometer (Magee Scientific); Aerosol Chemical Speciation Monitor (Aerodyne, USA); Sun Photometer (Microtops, Solar Light Co., USA); Integrating Nephelometer (TSI ,USA; Ecotech, Australia; Air photon, USA); OC-EC Analyzer (Sunset Lab., USA); Aerodynamic Particle Sizer (TSI,USA); Quartz Crystal Microbalance (California meas.); CCN counter (DMT, USA); Photo Acoustic Soot Spectrometer (DMT, USA); Aerosol Conditioning System (ACS-1000) (Ecotech, Australia); UV radiometer, net radiation sensor; Aerosol generators, dryers, ultrasonicators; Condensation Particle Counters (TSI, GRIMM and PALAS) and so on…

Publication Details

List of Publications in Refereed Scientific journals (Total: 26)

1) **Sobhan Kumar Kompalli**, Nair, V.S., Jayachandran, V., Gogoi, M.M., Babu, S.S., Particle number size distributions and new particle formation events over the northern Indian Ocean during continental outflow, **Atmospheric Environment**, 2020 (Accepted).
2) **Sobhan Kumar Kompalli**, Babu, S.S., Satheesh, S. K., Moorthy, K.K., Das, T., Boopathy, R., Liu, D., Darbyshire, E., Allan, J.D., Brooks, J., Flynn, M.J., and Coe, Seasonal contrast in size distributions and mixing state of black carbon and its association with PM1.0 chemical composition from the eastern coast of India, **Atmospheric Chemistry and Physics**, 20, 3965–3985, https://doi.org/10.5194/acp-20-3965-2020, 2020.
3) Nair, V. S., Jayachandran, V. N., **Sobhan Kumar Kompalli**, Gogoi, M. M., and Babu, S. S., Cloud condensation nuclei properties of South Asian outflow over the northern Indian Ocean during winter, **Atmospheric Chemistry and Physics**, 20, 3135–3149, https://doi.org/10.5194/acp-20-3135-2020, 2020.
4) Brooks, J., Liu, D., Allan, J. D., Williams, P. I., Haywood, J., Highwood, E. J., **Sobhan Kumar Kompalli**, Babu, S. S., Satheesh, S. K., Turner, A. G., and Coe, H., Black carbon physical and optical properties across northern India during pre-monsoon and monsoon seasons, **Atmospheric Chemistry and Physics**, 19, 13079–13096, https://doi.org/10.5194/acp-19-13079-2019, 2019a.
5) Brooks, J., Allan, J. D., Williams, P. I., Liu, D., Fox, C., Haywood, J., Langridge, J. M., Highwood, E. J., **Sobhan Kumar Kompalli**, O'Sullivan, D., Babu, S. S., Satheesh, S. K., Turner, A. G., and Coe, H., Vertical and horizontal distribution of submicron aerosol chemical composition and physical characteristics across northern India during pre-monsoon and monsoon seasons, **Atmospheric Chemistry and Physics**, 19, 5615–5634, https://doi.org/10.5194/acp-19-5615-2019, 2019b.
6) Gogoi, M.M., Lakshmi, N.B., Nair, V.S. **Sobhan Kumar Kompalli**, Moorthy, K.K., Babu, S.S., Seasonal contrast in the vertical profiles of aerosol number concentrations and size distributions over India: Implications from RAWEX aircraft campaign, **Journal of Earth System Science**, 128, 225. https://doi.org/10.1007/s12040-019-1246-y, 2019.
7) Gogoi, M.M., Rao C.T, Jayachandran V, **Sobhan Kumar Kompalli**, Nair, V.S., Rama Gopal, K., Babu, S.S., Spatial gradient of aerosol mass concentrations and size distributions over southeastern Arabian Sea and equatorial Indian Ocean during ICARB-2018, **Atmospheric Environment**, 727-738 pp, 213, https://doi.org/10.1016/ j.atmosenv.2019.06.038, 2019.
8) Arun, B. S., Aswini, A. R., Gogoi, M.M., Hegde, P., **Sobhan Kumar Kompalli**, Sharma, P. and Babu, S.S., Physico-chemical and optical properties of aerosols at a background site (~4 km a.s.l.) in the western Himalayas, **Atmospheric Environment**, 218, 117017, doi.org/10.1016/j.atmosenv.2019.117017, 2019.
9) **Sobhan Kumar Kompalli**, S. Suresh Babu, C. Udayasoorian, R.M Jayabalakrishnan, Role of anthropogenic emissions and meteorology on ultrafine particle bursts over a high altitude site in

Western Ghats during pre-monsoon, **Journal of Atmospheric and Solar-Terrestrial Physics**, 179, 378-388, DOI: 10.1016/j.jastp.2018.09.001, 2018.

10) Prasad, P., Roja Ramana, M. Venkat Ratnam, Wei-Nai Chen, S. Vijaya Bhaskara Rao, Mukunda M. Gogoi, **Sobhan Kumar Kompalli**, K. Sarat Kumar, S. Suresh Babu, Characterization of atmospheric Black Carbon over a semi-urban site of Southeast India: Local sources and long-range transport, **Atmospheric Research**, 213, 411–421, DOI:10.1016/j.atmosres.2018.06.024, 2018.
11) **Sobhan Kumar Kompalli**, S. Suresh Babu, Lakshmi N. Bharatan and K. Krishna Moorthy, Spring-time enhancement in aerosol burden over a high altitude location (4520 m amsl) in western trans-Himalayas: results from long-term observations, **Current Science**, 111, 117 – 131, doi: 10.18520/cs/v111/i1/117-131, 2016.
12) S. Suresh Babu, **Sobhan Kumar Kompalli** and K. Krishna Moorthy, Aerosol number size distributions over a coastal semi urban location: Seasonal changes and ultrafine particle bursts, **Science of the Total Environment**, 563–564, pp 351–365, http://dx.doi.org/10.1016/ j.scitotenv.2016.03.246, 2016.
13) **Sobhan Kumar Kompalli**, S. Suresh Babu, K. Krishna Moorthy, Mukunda M Gogoi, Vijayakumar S. Nair and Jai Prakash Chaubey, The formation and growth of ultrafine particles in two contrasting environments: A case study, **Annales Geophysicae**., 32, 817–830, doi:10.5194/angeo-32-817-2014, 2014.
14) **Sobhan Kumar Kompalli**, K. Krishna Moorthy, S. Suresh Babu, M.R. Manoj Aerosol mass size distribution and black carbon over a high altitude location in Western Trans-Himalayas: Impact of a dust episode. **Aeolian Research,** 15, 161-168. http://dx.doi.org/10.1016 /j.aeolia. 2014.05.003, 2014.
15) **Sobhan Kumar Kompalli,** S. Suresh Babu, K. Krishna Moorthy, M.R. Manoj, N.V.P. Kirankumar, K. Hareef Baba Shaeb, A.K. Joshi, "Aerosol Black Carbon characteristics over Central India: Temporal variation and its dependence on mixed layer height", **Atmospheric Research,** 147–148, 27–37, http://dx.doi.org/10.1016/ j.atmosres.2014.04.015, 2014.
16) **Sobhan Kumar Kompalli**, K. Krishna Moorthy and S. Suresh Babu, Rapid response of atmospheric BC to anthropogenic sources: observational evidence, **Atmospheric Science Letters,** 15: 166–171, DOI: 10.1002/asl2.483, 2014.
17) Mukunda M. Gogoi, K. Krishna Moorthy, **Sobhan Kumar Kompalli**, Jai Prakash Chaubey, S. Suresh Babu, M.R. Manoj, Vijayakumar S. Nair, Tushar P. Prabhu, Physical and optical properties of aerosols in a free tropospheric environment: Results from long-term observations over western trans-Himalayas, **Atmospheric Environment,** 84, 262-274, 2014.
18) S. Suresh Babu, M. R. Manoj, K. Krishna Moorthy, Mukunda M. Gogoi, Vijayakumar S. Nair, **Sobhan Kumar Kompalli**, S. K. Satheesh, K. Niranjan, K. Ramagopal, P. K. Bhuyan, Darshan Singh, Trends in aerosol optical depth over Indian region: Potential causes and impact indicators, **Journal of Geophysical Research,** 118, 11,794–11,806, doi: 10.1002/2013JD020507, 2013.
19) **Sobhan Kumar Kompalli,** S. Suresh Babu, K. Krishna Moorthy, Mukunda M. Gogoi, Vijayakumar S. Nair, Jai Prakash Chaubey, Seasonal variation of aerosol black carbon distribution over the Bay of

Bengal: multi-campaign measurements, **Atmospheric Environment,** 64, 366-373, DOI: 10.1016/ j.atmosenv.2012.09.073, 2013.

20) **Sobhan Kumar Kompalli**, V Sreekanth, Jai PrakashChaubey, Mukunda M. Gogoi, S Suresh Babu, Tushar P Prabhu and K Krishna Moorthy, Aerosol number size distribution measurements at Hanle, a free tropospheric high-altitude site in Western Himalayas, **Journal of the Institute of Engineering**, Vol. 8, No. 3, pp. 140-146, 2012.

21) Moorthy, K.K., V Sreekanth , Chaubey, J. P., Gogoi, M. M., Babu, S. S., **Sobhan Kumar Kompalli**, Bagare, S. P. , Bhatt, B.C , Gaur, V , Prabhu, T.P., , Singh, S N., Fine and ultra fine particles at near free-tropospheric environment over the high altitude station Hanle, in Trans- Himalayas: New particle formation and size distribution, **Journal of Geophysical Research**, doi: 10.1029/2011 JD016343, 2011a.

22) Babu, S. S., Chaubey, J. P., Moorthy, K.K., Gogoi, M. M., **Sobhan Kumar Kompalli** , Sreekanth V , Bagare, S. P. , Bhatt, B.C, Gaur, V, Prabhu,T.P., Ningombam,S.S. , High Altitude (~ 4520 m amsl) measurements of Black Carbon aerosols over Western Himalayas: Seasonal heterogeneity and source apportionment, **Journal of Geophysical Research**, doi:10.1029/2011JD016722, 2011b.

23) Mukunda M. Gogoi, Jai PrakashChaubey, V Sreekanth, **Sobhan Kumar Kompalli**, S Suresh Babu, Tushar P Prabhuand K Krishna Moorthy, Columnar aerosol extinction characteristics: Measurements from a free-tropospheric observatory in western-Himalayas, **Journal of the Institute of Engineering**, Vol. 8, No. 3, pp. 52–57, 2012.

24) Chaubey, J P., S Suresh Babu, Mukunda M. Gogoi, **Sobhan Kumar Kompalli**, V Sreekanth, K Krishna Moorthy and Tushar P Prabhu, Black Carbon aerosol over a high altitude (~ 4.52 km) station in western Indian Himalayas, **Journal of the Institute of Engineering**, Vol. 8, No. 3, pp. 42-51, 2012.

25) Babu, S. S., Sreekanth, V., Moorthy, K. K., Mohan,M., Kirankumar, N.V.P., Subrahamanyam, D. B., Gogoi, M. M., **Sobhan Kumar Kompalli**, Beegum, N., Chaubey, J. P., Kumar, V. H. A.,Manchanda, R. K., Vertical profiles of aerosol black carbon in the atmospheric boundary layer over a tropical coastal station: Perturbations during an annular solar eclipse, **Atmospheric Research**, doi: 10.1016/ j.atmosres.2010.11.019,2010.

26) **Sobhan Kumar Kompalli,** S. Suresh Babu and K. Krishna Moorthy, Inter-comparison of Aerosol Optical Depth from the Multi Wavelength Solar Radiometer with other radiometric measurements, **Indian Journal of Radio and Space Physics**, Vol.39, pp 364-371, 2010.

Technical Reports: (6)

1. **Sobhan Kumar Kompalli** and Ajeeshkumar PS, Design of Mechanical Layout of the Aerosol Humidograph Instrument (AHI), ISRO-VSSC-TR-0130-0-20, April 2020.
2. **Sobhan Kumar Kompalli** and Ajeeshkumar PS, Development of the isokinetic inlet system for ambient aerosol sampling,ISRO-VSSC-TR-0129-0-20, April 2020.

3. **Sobhan Kumar Kompalli**, Aditya Vaishya, Ajeeshkumar PS, "Design and performance evaluation of dryer module of the Aerosol Humidograph Instrument", ISRO-VSSC-TR-0513-0-18, December-2018.
4. Ajeeshkumar P. S., Aditya Vaishya, **Sobhan Kumar Kompalli**, Development of a Controller unit for Motorised Ball Valves of the Aerosol Humidograph Instrument, ISRO-VSSC-TR-0570-0-17, November-2017.
5. Aditya Vaishya, **Sobhan Kumar Kompalli**, Ajeeshkumar P. S., Development of an experimental setup for the study of aerosol hygroscopic properties (Design overview and technical details), ISRO-VSSC-TR-0434-0-16, August-2016.
6. Ajeeshkumar P. S., Aditya Vaishya, **Sobhan Kumar Kompalli**, Development of an experimental setup for the study of aerosol hygroscopic properties (Electrical integration and Software development), ISRO-VSSC-TR-0585-0-16, November-2016.

Presentations in Symposia/Workshops/Conferences (Total: 41)

International

1. **Sobhan Kumar Kompalli** et al., "Microphysical properties and mixing state of refractory black carbon aerosol in the Indo Gangetic Plain (IGP) outflow" Water Future conference at IISc, Bangalore, 23-25 September-2019.
2. **Sobhan Kumar Kompalli** et al., "Mixing state of black carbon in the IGP outflow", SWAAMI project review meeting at IISc, Bangalore, on 24-July-2018.
3. Arun, B.S., Gogoi, M. M, Borgohain, A., Kundu, S.S., **Sobhan Kumar Kompalli**, S. Suresh Babu, Regional synthesis of Black Carbon Aerosols over the Himalayas: Impact of synoptic source processes and long term trends, International Water Future Conference, IISc, Bengaluru, September-2019.
4. S. Suresh Babu, K. Krishnamoorthy, Vijayakumar S. Nair, **Sobhan Kumar Kompalli** and Mukunda Gogoi, "RAWEX Observations over India: Spring time enhancement in elevated aerosol absorption": poster presented in 2nd International workshop on 'Atmospheric Composition and Asian Monsoon (ACAM)-2015' at Bangkok, Thailand, 7-10 June 2015.
5. S. Suresh Babu, K. Krishnamoorthy, S. K. Satheesh, Mukunda Gogoi, V.S.Nair, **Sobhan Kumar Kompalli**, Jai Prakash Chaubey, Elevated layers of BC aerosols over Indian region and its implications: Results from Regional Aerosol Warming Experiment (RAWEX), American Geophysical Union, Fall Meeting 2012, 12/2012. Abstract #A41F-0042, *2012AGUFM.A41F0042B*.
6. **Sobhan Kumar Kompalli**, K. Krishna Moorthy and S. Suresh Babu, How fast BC responds to its anthropogenic sources? Oral and poster presentation at International Geosphere Biosphere program symposium on Geosphere-Biosphere interactions in a future earth held at Bangalore, April 07, 2014.
7. Mukunda M Gogoi, S. SureshBabu, K. Krishnamoorthy, **Sobhan Kumar Kompalli**, Vijayakumar S. Nair, Atmospheric and surface deposited black carbon over the high altitude Himalayas, implications to regional climate, Second Annual Regional Atmospheric Science (SARAS) workshop, Pokhara, Nepal,7-9 June 2014.
8. Mukunda M. Gogoi, **Sobhan Kumar Kompalli**, Jai Prakash Chaubey, S. Suresh Babu and K. Krishna Moorthy, Spring time enhancement in aerosol loading over the high altitude Himalayas: Implications to regional climate, International Tropical Meteorology Symposium (INTROMET-2014), SRM University, Chennai, 21 – 24 Feb 2014. *Received Best Paper Award*
9. Jai Prakash Chaubey, Mukunda M Gogoi, **Sobhan Kumar Kompalli**, Manoj M R, S Suresh Babu and K Krishna Moorthy, Vertical Heterogeneity in Black Carbon Aerosols over Norwegian Arctic: Local and Long range Transport, International Tropical Meteorology Symposium (INTROMET-2014), SRM University, Chennai, 21 – 24 Feb 2014
10. Mukunda M Gogoi, S Suresh Babu, K Krishna Moorthy, Jai Prakash Chaubey, Vijayakumar S Nair, Manoj M R, **Sobhan Kumar Kompalli**, Lakshmi N B, Roseline C Thakur, Thamban Meloth, S Rajan, Aerosol characteristics over Norwegian Arctic: results from Indian Scientific Expeditions,, Third International Symposium on Arctic Research (ISAR-3), Tokyo, 105 pp, Japan, 14-17 Jan, 2013.

National

1. **Sobhan Kumar Kompalli** et al., "On the mixing state of black carbon in the Indo Gangetic Plain (IGP) outflow", TROPMET-2019, Andhra University, Vizag, 11-14 December 2019.
2. Ajith T. C., Nair, V.S., **Sobhan Kumar Kompalli**, Jayachandran, V., Babu, S.S., "Physical, chemical and optical properties of atmospheric aerosols over a tropical coastal location, Thumba", The 2019 CIAAS Meeting: International Conference on Atmospheric Chemistry and Physics in Highly Polluted Environments, IIT Delhi, 22-24 March 2019.
3. Aditya Vaishya, **Sobhan Kumar Kompalli**, Ajeesh Kumar P.S., S. Suresh Babu, "Characterization of the 'Aerosol Humidograph Instrument' for aerosol optical growth studies", A211, IASTA-2018, IIT Delhi, Delhi, November-2018.
4. B. S. Arun, A. R. Aswini, Mukunda M Gogoi, **Sobhan Kumar Kompalli**, Prashant Hegde, and S. Suresh Babu, "Summer time aerosol characteristics at a free-tropospheric site Himansh (4080 m a.s.l) in the western Himalayas", A210, IASTA-2018, IIT Delhi, Delhi, November-2018.
5. Aditya Vaishya, **Sobhan Kumar Kompalli**, S. Suresh Babu; Aerosol Humidograph Instrument for the study of aerosol hygroscopic properties, Session 1: Aerosol Instrumentation, pp 11-13, IASTA – 2016, PRL, Ahmedabad, December-2016.
6. **Sobhan Kumar Kompalli**, S. Suresh Babu, K. Krishnamoorthy, Particle size distributions and ultrafine particle bursts over a coastal semi urban location: response to mesoscale and synoptic scale meteorology,19th National Space Science Symposium, SPL,VSSC, Trivandrum, February 9-12, 2016.
7. **Sobhan Kumar Kompalli**, V. Jayachandran, S. Suresh Babu, R. Murugaragavan, C. Udayasoorian, Meteorological dependence of ultrafine particle bursts over a high altitude forested location in southern India,19th National Space Science Symposium, SPL,VSSC, Trivandrum, February 9-12, 2016.
8. **Sobhan Kumar Kompalli**, S. Suresh Babu, Mukunda M. Gogoi, Lakshmi N.B., Manoj M.R., Aerosol climatology over a free-tropospheric location in western trans-Himalayas: Results from multi-year measurements of aerosol physical and optical properties, poster presented at National Climate Science Conference, Divecha Center for Climate Change, Indian Institute of Science, Bangalore, 2-3 July 2015.
9. **Sobhan Kumar Kompalli**, S.SureshBabu, Mukunda M Gogoi, K.Krishnamoorthy, Jai Prakash Chaubey , Ultrafine particle formation over a High altitude Himalayan location, pages.375-378, proceedings of Indian Aerosol Science and Technology Association (IASTA)-2014, Banaras Hindu University, Varanasi, November 11-12, 2014.
10. **Sobhan Kumar Kompalli**, S. SureshBabu, K. Krishnamoorthy, Mukunda M Gogoi, VijayakumarS.Nair, Jai PrakashChaubey, Spatial Gradients of Black Carbon over Bay of Bengal and influence of contrasting outflows, Proceedings of the *18th National Space Science Symposium*, Dibrugarh, January 29-February 1, 2014.
11. **Sobhan Kumar Kompalli**, S. SureshBabu, K.Krishnamoorthy, Mukunda M Gogoi, Manoj M.R., V. Jayachandran, Ultrafine particle formation events and aerosol number size distribution measurements over a tropical coastal station in India, Proceedings of the *18th National Space Science Symposium*, Dibrugarh, January 29-February 1, 2014.
12. S. Suresh Babu, M. R. Manoj, K. Krishna Moorthy, Mukunda M Gogoi, Vijayakumar S Nair, **Sobhan Kumar Kompalli**, S. K. Satheesh, K. Niranjan, K. Ramagopal, P. K. Bhuyan, Darshan Singh, Trends in Aerosol Optical Depth over India, Proceedings of the *18th National Space Science Symposium*, Dibrugarh, January 29-February 1, 2014.
13. Mukunda M Gogoi, S Suresh Babu, **Sobhan Kumar Kompalli**, Jai PrakashChaubey, K Krishna Moorthy, Free tropospheric aerosol properties over western Trans-Himalayas, Proceedings of the *18th National Space Science Symposium*, Dibrugarh, January 29-February 1, 2014.
14. Jai PrakashChaubey, S Suresh Babu, K Krishnamoorthy, Mukunda M Gogoi, **Sobhan Kumar Kompalli**, Manoj M R and AnoopTtiwari, Aerosol Properties within Atmospheric Boundary Layer from European Arctic Region: Results form year round measurements by India, Proceedings of the *18th National Space Science Symposium*, Dibrugarh, Jan 29-Feb 1, 2014.
15. **Sobhan Kumar Kompalli**, K. Krishna Moorthy and S. Suresh Babu, How fast BC responds to its anthropogenic sources? Proceedings of the ARFI, ICARB and RAWEX project review meeting, 8-9 January, 2014.
16. S. Suresh Babu, M. R. Manoj, K. Krishna Moorthy, Mukunda M Gogoi, Vijayakumar S Nair, **Sobhan Kumar Kompalli**, S. K. Satheesh, K. Niranjan, K. Ramagopal, P. K. Bhuyan and DarshanSingh, Trends in Aerosol Optical Depth over Indian region, Proceedings of the ARFI, ICARB and RAWEX project review meeting, 8-9 January, 2014.
17. Mukunda M Gogoi, K Krishna Moorthy, **Sobhan Kumar Kompalli**, Jai PrakashChaubey, S SureshBabu, Manoj M. R., Vijayakumar S Nair and Tushar P. Prabhu,Results from long-term aerosol

observations over HANLE: Physical and Optical properties,Proceedings of the ARFI, ICARB and RAWEX project review meeting, 8-9 January, 2014.

18. Mukunda M. Gogoi, Jai PrakashChaubey, **Sobhan Kumar Kompalli**, K. Krishna Moorthy, S. Suresh Babu, Manoj M. R., Vijayaklumar S. Nair, TusharPrabhu, Aerosol physical and optical characteristics in a free tropospheric environment: results from long-term observations over western Trans-Himalayas, Proceedings of IASTA (ISSN 0971-4570), pp 24-28, 11-13 December, 2012.
19. **Sobhan Kumar Kompalli**, K Krishna Moorthy, S Suresh Babu, Jai PrakashChaubey, Mukunda M. Gogoi, V Sreekanth, Manoj M R and Tushar P Prabhu: Aerosol number concentrations at near free-tropospheric environment over the high altitude station Hanle, in Trans- Himalayas, Proceedings of the ARFI, ICARB and RAWEX project review meeting, 20-21 June, 2012.
20. **Sobhan Kumar Kompalli**, S.SureshBabu, Dinakar Prasad Vajja, Ajeeshkumar P.S., Pramod P.P., Manoj M.R. and K.KrishnaMoorthy,, Infrared-Multi Wavelength solar Radiometer (IR-MWR): Development and Preliminary results, Proceedings of the ARFI, ICARB and RAWEX project review meeting, 20-21 June, 2012.
21. Babu, S S., Jai PrakashChaubey, K. Krishna Moorthy, Mukunda M. Gogoi, **Sobhan Kumar Kompalli**, V. Sreekanth, Manoj M R and Tushar P Prabhu: Long Term measurements of Black Carbon aerosols over a High Altitude (~ 4.52 km) location in Western Trans-Himalayas, Proceedings of the ARFI, ICARB and RAWEX project review meeting, 20-21 June, 2012
22. Mukunda M. Gogoi, S Suresh Babu, K Krishna Moorthy, Jai PrakashChaubey, **Sobhan Kumar Kompalli**, V Sreekanth and Tushar P Prabhu, Columnar Aerosol Optical Properties at Free Tropospheric Environment: Measurements from Hanle in Western Trans-Himalayas, Proceedings of the ARFI, ICARB and RAWEX project review meeting, 20-21 June, 2012.
23. Mukunda M Gogoi, S Suresh Babu, K Krishna Moorthy, Jai PrakashChaubey, **Sobhan Kumar Kompalli**, V Sreekanth, Manoj M R, Tushar P Prabhu, S. P Bagare, Bhuvan C Bhatt, Vinod K Gaur and N S Singh: Aerosols Physical and Optical Characteristics in Free Tropospheric Environment: RAWEX Observations in Western Trans-Himalayas, Proceedings of the *17th National Space Science Symposium*, February 2012
24. Chaubey, J P., S Suresh Babu, V Sreekanth, **Sobhan Kumar Kompalli**, Mukunda M Gogoi, K Krishna Moorthy, Tushar P Prabhu, S. P Bagare, Bhuvan C Bhatt, Vinod K Gaur, N S Singh: Fine and ultra fine particles at near free-tropospheric environment in Trans- Himalayas: Results from RAWEX, Proceedings of the *17th National Space Science Symposium*, February 2012, *Best Paper Award*
25. **Sobhan Kumar Kompalli**, K Krishna Moorthy, Jai PrakashChaubey, S Suresh Babu, Mukunda M Gogoi, Tushar P Prabhu, Particle Growth events over a high altitude near pristine Himalayan location and a tropical coastal station in India, Proceedings of the *17th National Space Science Symposium*, February 2012.
26. Chaubey, J P., K Krishna Moorthy, S Suresh Babu, **Sobhan Kumar Kompalli**, Mukunda M Gogoi, V Sreekanth, Tushar P Prabhu, S. P Bagare, Bhuvan C Bhatt, Vinod K Gaur, N S Singh: High Altitude (~ 4520 m amsl) measurements of Black Carbon aerosols over Western trans-Himalayas: Results from RAWEX, Proceedings of the *17th National Space Science Symposium*, February 2012.
27. Babu, S. S., Sreekanth, V., Moorthy, K. K., Mohan, M., Kirankumar, N.V.P., Subrahamanyam, D. B., Gogoi, M. M., **Sobhan Kumar Kompalli**, Beegum, N., Chaubey, J. P., Kumar, V. H. A., 'High-resolution vertical profiles of aerosol black carbon in the lower troposphere over a tropical coastal station during an annular solar eclipse', Proceedings of the National Workshop: Results on the Solar Eclipse, NaWRoSE, 2011.
28. **Sobhan Kumar Kompalli**, S.SureshBabu, K.KrishnaMoorthy, "Spatio-temporal distribution of Aerosol Black Carbon over the Bay of Bengal during Summer Monsoon Season of 2009.16th National Space Science Symposium, 24-27, February 2010.
29. **Sobhan Kumar Kompalli,** K. Krishna Moorthy and S. Suresh Babu "Aerosol Black Carbon over the Bay of Bengal during Summer Monsoon Season: Results from CTCZ experiment",Workshop on CTCZ-Pilot: Initial Results, 29-30 April 2010, Indian Institute of Tropical Meteorology (IITM), Pune.
30. **Sobhan Kumar Kompalli**, K.KrishnaMoorthy, S.SureshBabu, "Aerosol Black Carbon over the Bay-of-Bengal: Seasonal heterogeneity", Proceedings of the project review meeting, ARFI & ICARB 9-10 June 2010, Trivandrum.
31. R.P.Singh, **Sobhan Kumar Kompalli**, S.Panigrahy, M.Buchwitz and J.S.Parihar, 2008, "Variability of atmospheric Carbon dioxide concentration over India derived using ENVISAT-SCIAMACHY measurements"; poster presented in 'National Symposium of Indian Society of Remote Sensing' at Ahmedabad, 18-20 December 2008.