



**Centre for Study on Rainfall and Radio Wave Propagation,
Sona College of Technology,
Salem – 636 005,
Tamil Nadu,
India.**

Report on International Symposium on Rainfall Rate and Radio Wave Propagation (ISRR'07)

The first International Symposium on Rainfall Rate and Radio wave Propagation (ISRR'07) has successfully been conducted by the Department of Physics, Sona College of Technology, Salem, India during 29-30 Jan,2007 at the college premises. The symposium is sponsored by Council of Scientific and Industrial Research (CSIR), Indian Space Research Organization(ISRO), Tamilnadu State Council for Science and Technology(TNSCST) and co-sponsored by various local agencies. A proceeding has been published by American Institute of Physics. The proceeding contains 42 abstracts and 8 invited talks. The symposium consisted of five technical sessions. There were sufficient interactions during the technical sessions.

Theme of the symposium

You are aware that rainfall rate is a very important climatologically parameter. Though the onset of rainy season is predictable, the detailed microstructure of rainfall is yet to know. Till date we have little insight to the raindrop size distribution, terminal velocity of rain drops, vertical profile of rainfall rate, the rain height, the correlation of rainfall rate with meteorological elements like temperature, pressure, dew point temperature etc. Moreover rainfall rate is equally important for the link designers. In the millimeter wave frequency region rain heavily interrupts the wave propagation due to attenuation. Moreover rain causes differential attenuation and differential phase shift of the signal leading to cross talk.

Hence a study of rainfall rate is of immense importance to the link designers and atmospheric scientists. The proposed symposium aims to concentrate on rainfall study and its effect on radio wave propagation.

The symposium consists of series of invited lectures and presentations from delegates of various research institutions and universities of India and abroad. The symposium is organized to provide a scientific forum for the presentation of new results and to discuss recent developments in rainfall study and radio wave propagation.

Chief Guest

Dr. Ziad Haddad, Scientist, California Institute of Technology, Pasadena, USA

Resource Persons

Dr. Ziad Haddad, Scientist, California Institute of Technology, Pasadena, USA

Dr. Eyal Amitai, George Mason University, College of Science, Center for Earth Observing and Space Research.

Mail Address:

NASA GSFC, Code 613.1, Greenbelt, MD 20771 USA

Building 33, Room A421 (for express delivery)

Phone: (1) (301) 614-6341 Fax: (1) (301) 286-1626

<http://trmm-fc.gsfc.nasa.gov>

Dr. Dusan Zrnic, National Severe Storms Laboratory, NOAA, USA.

Dr. S.K. Sarkar National Physical Research Laboratory, New Delhi, India.

Dr. Satyendra Bhandari, Space Applications Centre, Indian Space Research Organization, Ahmadabad, India.

Dr. Animesh Maitra, S K Mitra Centre for Research in Space Environment, Calcutta University, India.

Dr. Vijay Bharkara Rao, SV University, Tirupati, India.

Dr. M.P. Singh, Allahabad University, India.

Details of participants whose abstracts/papers published in ISRR 07 Symposium

N. Vivekanandan
Assistant Research Officer
Statistics Division
Central Water and Power Research Station
P.O. Khadakwasla Research Station
Pune 411024, Maharashtra, India
E-mail: anandaan@rediffmail.com

G.A.Alexeev, M.V.Belobrova
Usikov Institute for Radio physics and Electronics of National Academy of Sciences of Ukraine, 12 Acad.Proskury St., 61085, Kharkov, Ukraine,
Phone: +380577203343, e-mail: belobrov@ire.kharkov.ua

Rajasekhar.M
Scientist, MET Facility / Range Operations
Indian Space Research Organisation
SDSC SHAR Sriharikota - 524 124 India
Ph.08623 222712 / 222422
Mob: +91- 9849148341 rajasekharmeka@gmail.com

Khomenko S.I., Kostina V.L., Morozov V.E., Mytsenko I.M., Roenko A.N.
Usikov Institute of Radiophysics and Electronics,
National Academy of Sciences of Ukraine,
12, Proskura St., Kharkov, 61085, Ukraine
Phone (380-57-744-00-06); Fax (380-57-744-11-05)
E-mail: khomenko@ire.kharkov.ua

K.Nanda Gopal*, K.Jyothi[#] and A.S.Nageswara Rao[§]
*Meteorological observatory, Ramagundam, Karimnagar, A.P, India.
#Pingle Govt. college for women, Warangal,A.P, India.
§Department of physics, kakatiya university, Warangal,A.P, India.
kondaveeti_nq@yahoo.com

V.I. Lutsenko, I.V Lutsenko, G.I. Khlopov
Usikov Institute for Radiophysics and Electronics, 61085, Ukraine, Kharkov,12 Proskura st.,
Ph: +38 (057) 744-83-40,
E-mail: lutsenko@ire.kharkov.ua
khlopov@ire.kharkov.ua

Dr. B. K. De
Department of Physics
Tripura University
Tripura (West) India
barin_kumar_de@yahoo.com

S.Venkatesh
Lecturer, ECE department, Mahendra Engineering College,
Namakkal Dt, Tamilnadu, India.
E-mail: venkatesh_2303@yahoo.co.in

Dr. R.S. Maheskumar
Scientist
Physical Meteorology & Aerology Division
Indian Institute of Tropical Meteorology
Dr. Homi Bhabha Road
Pashan, NCL Post Office
PUNE - 411 008
mahesh@tropmet.res.in
Phone : 91-20-25893600 (Work) Fax : 91-20-25893825

TESSY CHACKO P and G RENUKA
Department of Physics,
University of Kerala , Thiruvananthapuram
tessyparel@yahoo.com

Litta A. J
Junior Research Fellow,
Dept. of Atmospheric Sciences,
Cochin University of Science and Technology
Cochin -16 littaaj@gmail.com

Dr. C A Babu
Dept. of Atmospheric Sciences
Cochin University of Science and Technology
Cochin - 682 016, INDIA
Ph: +91 484 2353662 (O)[10:30 AM to 04:30 PM]
+91 480 2881651 (R) [08:00 PM to 07:00 AM]
babumet@gmail.com

D.K.Madhup, C.L.Shrestha, R.K.Sharma
Department of Electrical and Electronics Engineering
Kathmandu University, Dhulikhel, Nepal
Email: dineshmadhup@yahoo.co.in

S. Ramalingeswara Rao, K. Muni Krishna and Bhanu Kumar, O.S.R.U.
Department of Meteorology & Oceanography
Andhra University
Visakhapatnam - 530 003.
osrubhanukumar@yahoo.com

Dr. Ashok Kumar
Publication Officer
Marketing Division
Bharat Electronics Ltd
405, Industrial Area Phase-III
Panchkula-134113 (Haryana)
akumar_belpk@yahoo.com

Suresh Chandra Department of Physics
Institute of Basic Sciences, Khandar,
(Dr.Bhim Rao Ambedkar University)
Agra-282002
Ph: 05622526548
Mobile: 09719543449

Anil Kumar¹, D.Pradhan², H.A.K.Singh², M.M.Gupta¹, A.K.De³, J.Das³ and S.K.Sarkar¹
¹ National Physical Laboratory, New Delhi-110 012
² Cyclone Detection Radar, India Meteorological Department, Kolkata
³ Indian Statistical Institute, Kolkata-700 108

Col.P.K.Goutam
New Delhi

Mytsenko I. M., Khalameyda D. D., Khomenko S. I.
Russia

Arvind Sharma
M.Tech. Comp. Sc.
Final year (Final Sem.)
SATI college , Vidisha (MP)
Mail : arvinddevansh@rediffmail.com

Parshotam Sharma, I S Hudiara, M L Singh
Department of Elect. Tech.,
Guru Nanak Dev University,
Amritsar, Punjab, INDIA 143005
parsh_gndu@rediffmail.com

M.A. Saklayen, Md. Nazrul Islam and M.H. Ahsan
Department of Physics, Shahjalal University of Science & Technology
Sylhet- 3114, Bangladesh

Surendra Kr. Roy, Santosh Kr. Jha* and Lallan Jha
University Department of Physics
L.N. Mithila University, Darbhanga, Bihar
* UNSIET, Purvanchal University, Jaunpur

Dr. Rajiv Sinha and Dr. Ashok Kr.
Department of Physics
B.N. Mandal University
Laloo Nagar, Madhipura, Bihar

N. Sirota⁽¹⁾, V. Morozov⁽²⁾
⁽¹⁾Service of active impact on hydro-meteorological processes in Crimea,
Sympheropol, Ukraine, sirnik@minagro.crimea.ua
⁽²⁾Usikov Institute for Radiophysics and Electronics, khlopov@ire.kharkov.ua,
61085, Ukraine, Kharkov, 12 Proskura st., Ph: +38 (057) 744-83-40

Recommendations:

- ISRR will be conducted regularly. It is to be decided whether it is to be conducted annually or once in two years.
- Next ISRR will be hosted by the Department of Physics, Tripura University.
- The symposium should be renamed as “**International Symposium on Rainfall and Radio wave Propagation(ISRR)**” instead of “**International Symposium on Rainfall Rate and Radio wave Propagation**”.
- A National and an International body will be formed to do the follow up actions and monitoring sufficient collaborations among researchers of India and abroad.
- Radio Physics Department, Calcutta University, Space Applications Centre, Ahmadabad and Institute of Radio Physics and Electronics, Ukraine have extended collaboration to Sona College of Technology in this field.

Suggestion from the convener of ISRR’07:

- ISRR will have a permanent web site accessible to all researchers in this field of India and abroad. The details of the website address will be intimated shortly.
- Let the study of rainfall and radio wave propagation be pursued in a joint manner including all geographical locations of India and abroad. Let the researchers interact with each other through ISRR web site in this regard.
- World wide data bank on rainfall and propagation studies may be formed which will be accessible to all researchers working in this field. The availability of all the geographical locations simultaneously will give better understanding of the subject.
- The researchers are requested to exchange technical and theoretical help among them, as when required, keeping in mind that this will help us in understanding the subject and preventing rainfall related hazards.
- After getting consent from the researchers, particularly from the experts in the field, the funding agencies will be approached to sponsor all ISRRs annually or once in two years.

The above suggestions are kept open for discussions and modifications.

Rajasri Sen Jaiswal
(Convener, ISRR’07)