

ICRANet Scientific Committee  
Sixteenth Meeting  
January 14, 2019

The meeting starts at 12:00 am of January 14, 2019 at ICRANet Headquarters in Pescara (Italy).

The following members are present:

Prof. Manuel Malheiro (Representative of Brazil, ad interim, Video Conference)  
Prof. Carlo Luciano Bianco (Representative of ICRA)  
Prof. Massimo Della Valle (Representative of Italy, Chairman)  
Prof. Jorge Rueda on behalf of Prof. Christopher Fryer (Representative of the Arizona University)  
Prof. Remo Ruffini (Director of ICRANet)  
Prof. Narek Sahakyan (Representative of Armenia, Video Conference)

The additional following persons are present:

Prof. Vladimir Belinski (ICRANet Faculty)  
Prof. Paolo Giommi (ASI, Italy)  
Dr. Li Liang (ICRANet post-doc)  
Rahim Moradi (IRAP PhD student)  
Prof. Gregory Vereshchagin (ICRANet Faculty)  
Prof. She-Sheng Xue (ICRANet Faculty)  
Dr. Yu Wang (ICRANet post-doc)

The meeting is chaired by Prof. Massimo Della Valle and the minutes are taken by the Director.

1. The Chairman invites the Director to present the report to the Committee. The Director presents the report to the Committee, inviting ICRANet scientists to illustrate their respective fields of research.

The report of the Director includes:

- the presentation of Dr. Narek Sahakyan, Director of ICRANet-Yerevan, on the topic “*High Energy Gamma-rays from Active Galactic Nuclei*” on the main scientific results and activities carried on in ICRANet Seat in Armenia in 2018. In particular, he recalls the active role of 5 PhD students enrolled in Armenia. He underlines that ICRANet-Yerevan is a full member of MAGIC collaboration and takes part in all associated activities, including the next meeting of MAGIC collaboration in June 24-28, 2019. The main activity of the group concerns gamma-ray emission from AGNs. In this regard, the Director invites Yu Wang to illustrate the activities of data analysis based on deep machine learning algorithms using neural networks. Prof. Paolo Giommi comments on the presentation, underlying the importance of joint collaboration with the group. In connection to this work, the Director mentions the expected collaboration with China, in particular with Tsinghua University.
- the presentation of Prof. Paolo Giommi “*The ICRANet Brazilian Science Data Center (BSDC) and Multi-frequency selection and studies of blazars*”, on the scientific collaboration of ICRANet with Brazil. He mentions the Open Universe initiative, of which ICRANet is one of the promoter. He reports on development of BSDC and numerous agreements with scientists to provide data for BSDC. Problems in interruption of services at CBPF, where the BSDC is currently based, are mentioned, as well as the effort of Prof. Ulisses Barres de Almeida in overcoming these temporary difficulties. Prof. Giommi reports also on the development of new data analysis techniques and publications in leading refereed journals, including Science. The Director and Prof. Manuel Malheiro discuss about the preparation of a new proposal for the Memorandum of Understanding between ICRANet and CAPES.

- Prof. Vladimir Belinski illustrates his scientific results on the topic “*Exact solutions of Einstein and Einstein-Maxwell equations*”. In particular, the activities of Professors Hernando Quevedo, Tibault Damour and George Alexeev, collaborating with ICRANet, are mentioned. New results in traditional topics, including cosmological singularities and stationary solutions of Einstein-Maxwell equations, are reviewed. In this regard, the Director comments on the recent results related to classical results of Wald, obtained by the group including himself, Jorge Rueda, Yu Wang and Rahim Moradi, underlying those very important new results and the necessity to review the previous results obtained in the field of gamma-ray bursts.
- Prof. Carlo Luciano Bianco summarizes his scientific activities on the topic “*Gamma-Ray Bursts*”. He underlines important new results, in particular the constraints on the Lorentz factor, published in 2018.
- The Director invites Prof. Gregory Vereshchagin to illustrate his results for 2018 on the topic “*Theoretical Astroparticle Physics*”. Prof. Vereshchagin reports on his recent results and mentions that, following the defense of his doctorate thesis, the higher state committee of Belarus has awarded him the title “Doctor of Sciences”, which is the highest national habilitation degree. He also mentions the translation of the book “*Relativistic kinetic theory*” he co-authored with Alexey Aksenov, published by Cambridge University press in 2017 into Russian, supported by the Russian Foundation of Basic Research and published with the leading publisher “Nauka”. The Director congratulates Prof. Vereshchagin with these achievements.
- The Director comments positively on the report “*Generalizations of the Kerr-Newman solution*” by Hernando Quevedo, partly presented in the report by Prof. Belinski.
- The Director comments positively on the report “*Black Holes and Quasars*” by Brian Punsly, who has updated his report with a new publication in ApJ.
- The Director invites Prof. She-Sheng Xue to report on the topic “*Electron-positron pairs in physics, astrophysics and cosmology*”. Prof. Xue presents the report and mentions recent results in the study of magneto genesis of the group including himself, prof. Sang-Pyo Kim (Korea), Ehsan Bavarsad (Iran) and Clement Stahl (France). Prof. Ruffini commented on this activity underlying the importance to clarify the physical problem and indicating the results obtained by Prof. Xue in the explanation of GeV emission in GRBs.
- Prof. Jorge Rueda reports his recent results on the topic “*From Nuclei to Compact Stars*”, indicating active collaboration with previous students within CAPES-ICRANet program and within IRAP-PhD program, who now cover positions of professors in Brazil, as well as recent publications. He underlines that the major results were obtained on white dwarfs, neutron stars and binary interactions.
- Prof. Massimo Della Valle presents the report “*Supernovae*” on the activities including the work on the new spectrograph on the 4-meter class NTT telescope of ESO, supported by INAF, Weizmann Institute, Queen University of Belfast and University in Chile. This work will allow detection of thousands supernovae per night. A discussion on rates of white dwarf mergers follows.

The Scientific Committee unanimously approves the Report and warmly congratulates with the Director for the achievements of ICRANet in 2018.

2. The Director illustrates the successful collaboration with ASI and the new collaboration agreements with the Campus Bio-medico University of Rome and INAF. In particular, the collaboration with INAF will allow the association of ICRANet scientists to INAF.

The Scientific Committee unanimously welcomes these new collaboration agreements.

3. The Director recalls that the offices of ICRA in the Physics Department of Sapienza University of Rome have been locked on 5<sup>th</sup> November 2018, and that all belongings of ICRA and of the associated researchers have been removed between December 27<sup>th</sup> and January 3<sup>rd</sup> without any official communication of their storage place nor of their safeguard. This was justified by Sapienza with the termination of the agreement between ICRANet and Sapienza. The President of ICRA objected that ICRANet activities in those offices, which were used by ICRA without any interruption since its foundation in 1985, already stopped since the end of July and that therefore the action of locking them was unjustified. The scientific activities, as well as the teaching activities within the IRAP-PhD program, of ICRA in Sapienza University were blocked.

The Director also recalls that, in spite of the very large scientific activities of ICRANet and ICRA during 2018, manifested by one hundred of papers published in international Journals, one paper was jointly published by ICRA and ICRANet on Journal of Cosmology and Astroparticle Physics in which the LIGO-Virgo results on the direct detection of a gravitational wave, published in Physical Review Letters, were shown to be not reliable in view of their contradiction with basic physical principles. He recalls as well that the Physics department of Sapienza is hosting a “programma di eccellenza” of Minister of Education, University and Research (MIUR) on gravitational wave physics, and that therefore it is unfortunate that ICRA activities within Sapienza have been blocked in a moment when the dialogue with ICRA scientists could be extremely profitable for the necessary clarifications and scientific progress on this matter.

The Director announces the intention of the President of ICRA to send a letter to inform the MIUR of this situation and to ask for the needed support:

- a) It is inappropriate that the qualified scientific dialogue on such fundamental issues is hampered in an university, and the corresponding scientific and teaching activities should be urgently restored.
- b) The files and properties of ICRA, which includes the personal assets of the ICRA affiliates as well as the files of joint activities with ICRANet which are inviolable, include also the scientific memories of the most prominent scientists working in Astrophysics worldwide in the last 40 years. In addition to their scientific correspondence, their signed inscriptions are recorded on the walls of room G9 of ICRA. All these precious documents and testimonies should be preserved as a cultural heritage of humanity under the protection by UNESCO.
- c) All the properties of ICRA and documentation, as well as computers and personal properties of the ICRA affiliated scientists, should be returned and the conditions for teaching and research within the IRAP-PhD in an ICRA seat should be promptly reestablished.

The Director proposes to send a letter to the President of the European Physical Society as well as to the President of the American Physical Society, signed by him as a Founding Member of the European Physical Society and as Fellow of the American Physical Society.

The Director asks the opinion of the members of the Scientific Committee. Prof. Rueda expresses his doubts that, after an exchange of many letters, an additional letter is unlikely to change the situation. The Director replies that, in addition to the many letters also sent in copy to the Auditors of Sapienza, there were two letters sent by a lawyer in defense of ICRA interests. The Chairman of the Scientific Committee expresses his point of view that a legal action with a good lawyer should follow, since now it seems impossible to resolve the situation otherwise.

The Director emphasizes that it is reassuring that, in this delicate moment, ICRANet is securely driving for its scientific research in each ICRANet Centers as well as in the other ICRA Member Institutions, including in Italy the University of Insubria, the University of Udine, and the University Campus Biomedico in Rome.

The Scientific Committee takes note of the situation, unanimously wishes for a solution of the problems and looks forward to an even more successful fostering of ICRANet activities.

The meeting ends at 18:00 pm on January 14, 2019, after the reading and unanimous approval of this report.

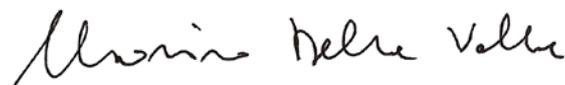
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Prof. Massimo Della Valle  
Representative of Italy, Chairman



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