Physics Today

Soviet Union Joins Unesco

Citation: Physics Today **7**(6), 8 (1954); doi: 10.1063/1.3061683
View online: http://dx.doi.org/10.1063/1.3061683
View Table of Contents: http://scitation.aip.org/content/aip/magazine/physicstoday/7/6?ver=pdfcov
Published by the AIP Publishing

free path for nuclear collisions—determining the mean life of cosmic rays in the galaxy. It is pointed out, however, that the confinement of the diffusing material within a single spiral arm of the galaxy gives about the same results as such a disc and is a "perhaps more plausible geometry". Further, on the basis of a very general discussion, it is "difficult to escape the conclusion that the bulk of cosmic rays—those with energies between 2 Bev and 10 Bev—are locally generated, in our galactic neighborhood, mostly within a few thousand light years from the sun". Hence the center of the galaxy with its dense concentration of stars, being 30 000 light years away, cannot easily be assumed to be the source of cosmic rays reaching the earth despite speculations to the contrary.

Two important parameters in hypotheses of cosmic ray origin are λ, the mean free path between accelerating events, and α, the fractional energy gain per acceleration. α is independent of the particle energy. Morrison, Olbert, and Rossi suggest tentatively that λ is about 1 light year and α about 6×10^{-7}.

The Gulmarg Observatory

INDIA'S high-altitude research laboratory in the Himalayas at Gulmarg, established some two years ago under the joint auspices of the Muslim University at Aligarh and the University of Jammu and Kashmir, was formally opened on April 4th of this year during ceremonies attended by a visiting physicist from America, Nobel Laureate Arthur H. Compton. The director of the laboratory, Professor P. S. Gill of Aligarh University, observed that it was only fitting that Professor Compton declare the observatory open since he had been the first to initiate the study of cosmic rays in India, having carried out a program of measurements at Tosh Maidan in Kashmir almost thirty years ago.

Professor Compton thereupon opened the laboratory, it is reported, with a quotation from Aristotle: "The understanding of nature in one way is difficult and in another way very easy for no one can know her fully, nor can he miss her wholly. But from the contributions that come from many sources there gradually arises a certain grandeur. . . ."

Noting that the altitude of the Gulmarg Observatory (9000 feet) compares favorably with several outstanding high-altitude laboratories elsewhere in the world, Professor Compton emphasized that the location is also suitable as a base station for work at still higher altitudes up to 11 000 feet at Khillan Marg, one hour distant, and up to 14 000 feet at Apharvat, three hours distant. "These locations," he said, "are as high as any station at which high-altitude research is now regularly being done. The latitude and longitude are of special significance in cosmic-ray measurements, in comparing results with those obtained elsewhere. The latitude is that at which most rapid cosmic-ray changes occur with changing latitude. The longitude is close to that where maximum effects of the earth's magnetic field are felt. Comparison of results found here with those from other stations are thus of special significance with regard to the effects of the earth's magnetic field on the primary cosmic rays, a subject of major theoretical interest.

"The establishment of such a high-altitude observatory where it can be operated by Indian scientists is of especial importance in providing an opportunity for significant contributions to the advance of science and for training competent scientists. Thus this observatory affords an important opportunity for the development of Indian experimental science. It is in this aspect of science that India recognizes the special importance of increasing her strength.

"Special mention should be made of the importance of encouraging other universities and research laboratories to carry on their own research at Gulmarg. Indian Science and in particular the Universities of Aligarh and of Jammu and Kashmir are fortunate to have this laboratory. It is an asset to India and to the scientific world."

As reported previously, the observatory at Gulmarg is pleasantly situated in a mountain region twenty-eight miles from Srinagar, capital of the State of Jammu and Kashmir. The geomagnetic latitude is 23°32′ north at longitude 75° east and the laboratory, while inaccessible by road during the winter, can remain open from about the middle of March until the end of October. Professor Gill, who has directed the observatory since its inception, is dean of the faculty of science at Aligarh and honorary professor of physics at the University of Jammu and Kashmir.

Soviet Union Joins Unesco

RUSSIA, after having refused for more than eight years to join the United Nations Educational, Scientific, and Cultural Organization, finally became a member state of Unesco on April 21st. Within a few hours after Soviet Ambassador Y. Malik had signed the articles of adherence in London, a Russian delegation disrupted a Unesco-sponsored conference at The Hague (on wartime protection of national treasures) with demands that East Germany and Red China be accredited to take part in the discussions and that Nationalist China be unseated. The demands were rejected. As a member of the UN, Russia has had the right to join Unesco at any time, but has heretofore been content merely to condemn Unesco as being an instrument used for the advancement of American policy. Three other Soviet bloc governments, Poland, Czechoslovakia, and Hungary, have nominally been listed as member states of Unesco, but have withheld their support because of objections to the seating of Spain and to the refusal of Unesco to grant membership to Communist China. Within two days of the Soviet action to join Unesco all three countries announced plans to send delegations to the conference.