

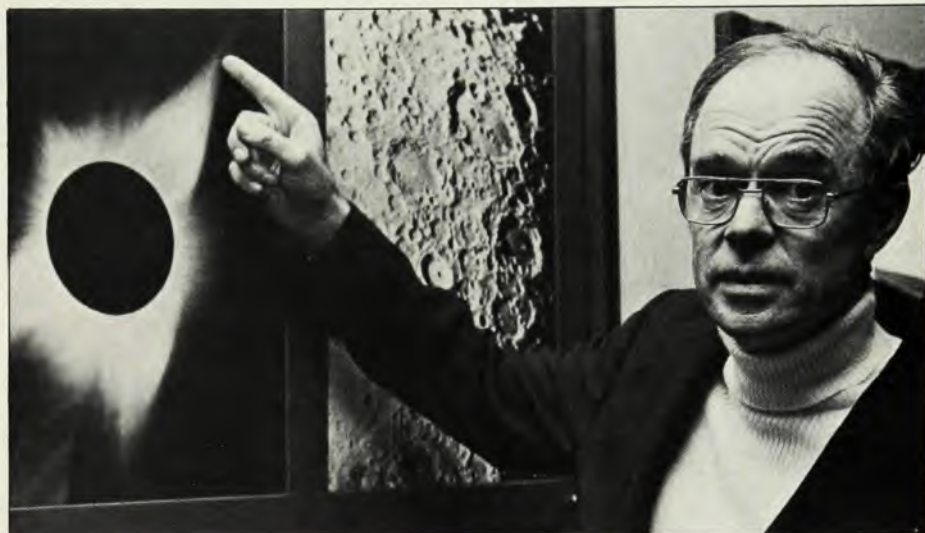
we hear that

Astronomical Society awards first Hale Prize to Parker

Eugene N. Parker, Distinguished Service Professor in the departments of physics, astronomy and astrophysics, the Enrico Fermi Institute and the College at the University of Chicago, was named the first recipient of the George Ellery Hale Prize of the Solar Physics Division of the American Astronomical Society. The AAS presented the award to Parker at their 152nd meeting held at the University of Wisconsin in June.

The solar-physics division established the Hale Prize, which consists of a medal and a \$500 honorarium, from the contributions of several individuals and institutions to honor outstanding achievements in solar astronomy. The award will be presented every two years.

Parker, who will deliver a lecture at a future meeting of the AAS as the Hale prizewinner, was cited "for his imaginative and stimulating contributions in which plasma and magnetohydrodynamical physics have been applied to astronomy." Among the specific areas of Parker's research that the citation isolates are the origin and propagation of galactic cosmic rays, the expansion of the solar



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and stellar winds, the interaction of the solar wind with the terrestrial magnetic field, the formation of sunspots and the origins of solar, stellar and cosmic magnetic fields.

Parker earned his PhD in physics from Caltech in 1951. He has been a professor

at the University of Chicago since 1962 and is at present chairman of the astronomy and astrophysics department. His chief research interests are magnetohydrodynamics, plasma physics, solar flares and the influence of magnetic effects on solar-system phenomena.

Royal Society honors Salam, Porter and Cochran

Among the awards that will be presented by the Royal Society on 30 November are the Hughes Medal to William Cochran, the Rumford Medal to Sir George Porter and a Royal Medal to Abdus Salam.

Cochran, a professor of natural philosophy at the University of Edinburgh, is cited for his advances in the fields of crystallography and lattice dynamics. "He realized the importance of electron density distribution in solids, developed the necessary techniques and performed the first successful experiments in this field." The Royal Society also noted his appreciation of the significance of neutron-scattering techniques in the determination of interatomic forces, his use of x-ray diffraction and Fourier analysis, and his development of the shell model for lattice dynamics and of the "soft mode" theory of structural phase transitions and ferro-electricity. Cochran received his

PhD from the University of Edinburgh in 1946 and has been a professor there since 1964.

Porter is Fullerian professor of chemistry and director of the Royal Institution. He will receive the Rumford Medal for his development and use of the technique of flash photolysis, in which ultrafast chemical reactions may be studied by observing changes induced by using very short, intense bursts of light to produce unstable excited states which were formerly inaccessible. Using this technique he measured the spectra and reactivity of short-lived free radicals and molecules, revealing the chemistry of the triplet state. Porter is further cited for having "added to our knowledge of photo-physical and other chemical processes." In 1967 he received the Nobel Prize in chemistry with Ronald Norrish and Manfred Eigen for their discovery of flash photolysis.

Salam, a professor of theoretical physics at the Imperial College of Science and

Technology in the University of London, is commended for his prolific research in theoretical elementary-particle physics. "His work on renormalization theory and the neutrino added greatly to our understanding of weak atomic interactions." His major recent contribution is the Salam-Weinberg unified theory of weak and electro-magnetic interactions. The neutral weak currents predicted by the theory have recently been detected, and some feel the theory is as important as the nineteenth-century unification of the theories of electricity and magnetism. Salam is also active in promoting scientific research with developing countries.

Zhores Alferov wins Europhysics Award

The European Physical Society presented its annual Hewlett-Packard Europhysics Award to Zhores Ivanovich Alferov of the A.F. Ioffe Physico-Technical Institute in