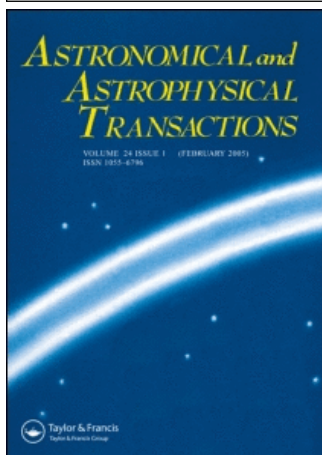


This article was downloaded by:[Bochkarev, N.]
On: 18 December 2007
Access Details: [subscription number 788631019]
Publisher: Taylor & Francis
Informa Ltd Registered in England and Wales Registered Number: 1072954
Registered office: Mortimer House, 37-41 Mortimer Street, London W1T 3JH, UK



Astronomical & Astrophysical Transactions

The Journal of the Eurasian Astronomical Society

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t713453505>

Celebration of gamow's birth: 90 years later

R. A. Alpher^a; R. Herman^b

^a Distinguished Professor of Physics Union College,

^b L. P. Gilvin Centennial Professor Emeritus University of Texas at Austin,

Online Publication Date: 01 June 1996

To cite this Article: Alpher, R. A. and Herman, R. (1996) 'Celebration of gamow's birth: 90 years later', Astronomical & Astrophysical Transactions, 10:1, 1 - 2

To link to this article: DOI: 10.1080/10556799608203237

URL: <http://dx.doi.org/10.1080/10556799608203237>

PLEASE SCROLL DOWN FOR ARTICLE

Full terms and conditions of use: <http://www.informaworld.com/terms-and-conditions-of-access.pdf>

This article maybe used for research, teaching and private study purposes. Any substantial or systematic reproduction, re-distribution, re-selling, loan or sub-licensing, systematic supply or distribution in any form to anyone is expressly forbidden.

The publisher does not give any warranty express or implied or make any representation that the contents will be complete or accurate or up to date. The accuracy of any instructions, formulae and drug doses should be independently verified with primary sources. The publisher shall not be liable for any loss, actions, claims, proceedings, demand or costs or damages whatsoever or howsoever caused arising directly or indirectly in connection with or arising out of the use of this material.

HISTORY

CELEBRATION OF GAMOW'S BIRTH: 90 YEARS LATER

INTRODUCTION

Dear Conference Organizers, Colleagues, and Friends and Relatives of George Gamow:

George Gamow was a great scientist and unique human being and is justly being honored at this meeting on the occasion of the 90th year of his birth in Odessa, Russia, on March 4, 1904. We are saddened and deeply regret that we are not able to share this wonderful celebration with you, especially so, since we were very closely associated with Gamow, one of us (RAA) as a PhD student, and both of us as colleagues and friends over a considerable period of time.

Gamow's career is, of course, extremely well known but we feel that it is most appropriate here to mention what are in our view his greatest accomplishments, as well as to express our appreciation for many years of close intellectual and personal interaction with a man who undoubtedly was one of this century's most creative scientific minds.

What is fascinating is that Gamow was a scientist of especially great breadth, a characteristic given perhaps only to the greatest, with a genius for interpreting and presenting science to the young and uninitiated, both in his writing and in brilliant lectures. He made fundamental and outstanding contributions to atomic and nuclear physics, astrophysics and cosmology, and to biology as well. His theory of the decay of the alpha particle early in his career already placed him in the first rank of physicists. During his years in Washington, D.C., subsequent to his arrival in the United States, his collaboration with Edward Teller led to the well known beta decay selection rules. At that time he also studied liquid drop models of the nucleus and thermonuclear reactions in stars.

Gamow's lifelong interest in astronomy led him to research on stellar structure and evolution, neutrino energy release in stars, and to the deep technical and philosophical questions of nucleogenesis and the structure and evolution of the universe. He was one of the foremost proponents of the Big-Bang model of the universe, an approach that we were proud to be a part of. He made the case for nucleosynthesis in the early dynamic universe which served as our inspirational stimulus in studying the synthesis of the nuclides in the expanding universe. This eventually led us to develop a theoretical model of the expanding universe and the associated prediction of the present temperature of the cosmic microwave background radiation.

It is remarkable that he actually did some of the pioneering work on DNA which eventually led to the breaking of the genetic code.

Throughout Gamow's career he maintained a deep interest in interpreting science for the scholar, student and layman as evidenced in his important early mono-

graphs on nuclear theory, in particular, "Theory of Atomic Nucleus and Nuclear Energy-Sources", in his extremely interesting and stimulating elementary textbooks, and above all his unique volume, "One two three... infinity: Facts and Speculations of Science". He authored the marvelous series of works about Mr. Tompkins which have intrigued generations of budding scientists, young and old alike. His flair for popular writing was indeed unique and, coupled with his unbounded energy, led to nearly thirty volumes, which have been translated into many languages around the world to this very day. These outstanding contributions were recognized by UNESCO in 1956 when they awarded Gamow the Kalinga Prize for popularization of science.

Perhaps most intriguing of all, are Gamow's lively personal recollections in "My World Line: An Informal Autobiography". This charming work was aptly described by one of Gamow's close colleagues Max Delbrück as "... a delightful book giving the impression of the inimitable Gamow".

It was a privilege and an inspiration to have known and worked with George Gamow and to have experienced his remarkable intuitive thought processes. In order to express our appreciation for the important influence that he had on our scientific and personal lives we feel that we cannot do better than to quote the last paragraph we wrote in an essay in 1972 entitled "George Gamow - An Appreciation" which appeared in "Cosmology, Fusion and Other Matters: George Gamow Memorial Volume":

"Gamow's mind ranged freely over the wide fields of physics and biology. His unbounded energy and enthusiasm infected his colleagues with the enjoyment of doing research. His strength was in the area of physical ideas and concepts rather than the details, although he himself never failed to do back-of-the-envelope calculations with a brand of arithmetic often hardly better than his spelling. Because of his sense of humor and strongly flavored personality, only those privileged to share the adventure of science with him really understood and appreciated his commitment and love for the unravelling of nature and his great creative contributions".

We are deeply grateful for the profound influence that George Gamow had on our lives and we are moved to recall the following quotation from Alexey Tolstoy, a distant relative of Leo Tolstoy: "A great man's passage in history is not marked by two dates - that of his birth and that of his death - but by only one: the date of his birth".

Once again may we convey our regret in not sharing with you this auspicious occasion honoring George Gamow. We extend to you our congratulations for organizing this tribute to Gamow and we wish you the greatest success in this endeavor.

R. A. Alpher

Distinguished Professor of Physics Union College

R. Herman

*L. P. Gilvin Centennial Professor Emeritus
University of Texas at Austin*