

Acceptance Speech of
PROFESSOR RASHID ALIEVICH SUNYAEV
Co-Winner of the 2009
King Faisal International Prize for Science
31st Ceremony
Saturday 28 March 2009 (1.4.1430H)

Your Majesty, Custodian of the Two Holy Mosques,

King Abd Allah Ibn Abd Al-Aziz

Your Highnesses

Your Excellencies

Distinguished Guests

It is a great honor for me to be on the list of the most distinguished scientists awarded the King Faisal International Prize for Science over the last 31 years. It was a surprise for me to be selected for this prize because no astrophysicist has ever received this award. I hope that the main reason was that I was educated as a physicist and physics helped me to solve the cosmological and astrophysical problems which were mentioned in the decision of the Selection Committee.

Modern cosmology led to the detection of “dark energy” (its energy density is measured today with three independent astronomical methods) and “dark matter”. “Dark” means here – invisible, for example, astronomers measure the gravitational attraction of the “dark matter” but do not see it yet directly. And to understand the nature of these substances, unknown yet for

the laboratory physics, is the new great challenge for modern theoretical and experimental physics.

In addition it is important to mention, that this year is endorsed by the United Nations, UNESCO and the International Council of Science (ICSU) as a Year of Astronomy.

For me it is very symbolic that the prize comes from the part of the world which led world astronomy for many centuries. Scientists of the Arabic caliphate were able to use all the experience of the ancient world and to enrich it with new great discoveries. Many stars with peculiar behavior and strong variability (they obviously were and are most interesting for astrophysics) and the majority of bright navigating stars on the sky carry Arabic names. European scientists of the Renaissance epoch were learning mathematics and astronomy using books translated from Arabic. These great traditions of science were broadly distributed from Cordoba and Granada to Persia and India and influenced the development of astronomy in Central Asia and especially in Samarkand, which is not very far from Tashkent where I was born and graduated from the school.

I am very glad to have the opportunity to visit Saudi Arabia and to see the country with great and rich history and to observe the achievements during the last 90 years of modern development.