ACTUAL PROBLEMS AND ACHIEVEMENTS OF THE UNIVERSE

Turayeva Nozima
A student of the 3rd stage of physics and astronomy

Urinboyeva Kumushoy Sultanbek qizi
Andijon Satate pedogogical university
Teacher of the department of informatics and exact sciences

ABSTRACT

Cosmogony describes the origin and evolution of the galaxy, Cosmology problems of cosmogony and geometric structure of the galaxy, It deals with the coming into being NASA's space exploration project. Advances in modern astronomy.

Keywords: Cosmogony, Astronomy, Cosmology. Satellite. Materia. Simulation.

Entrance: Stellar (or Galactic) astronomy. Part of Star astronomy is being developed with issues such as stars, gas-dust clouds and the movement of stars in our galaxy, their statistical distribution in terms of spatial and physical properties, evolution, instability. During the period when this section was formed independently, serious results on the structure and evolution of the Galaxy were not yet left, while there were many unresolved questions. To answer these questions, The Specialists of this department studied the eyebrow Galaxy. The result was an extrasolar astronomical flame from the Galaxy, bringing the star astronomy department closer to astrophysics. For this reason, Star astronomy is today referred to as Galaxy astronomy. The composition of Star astronomy, from a classical point of view, in general, consists of three branches: star statistics, star kinematics, dynamics and evolution of the star system.

Cosmogony. It is this section that constitutes the problems of the emergence and evolution of all objects in the universe observed within the framework of Newtonian mechanics. Its objects are: planets and their companions, The Sun and its system, Stars and they are toda, galaxies and they are toda and others.

Cosmology. This section is devoted to the study of the problems of Cosmogony, as well as issues related to the geometric structure, emergence and evolution of the universe within the framework of Einstein's mechanics. Like Cosmogony, cosmology relies on observational data from astrophysics, star astronomy, specifically extragalactic astronomy, radio astronomy. Cosmology has developed rapidly today with networks of theoretical and observational foundations. In cosmology, much

attention is paid today on the basis of observational data, especially on the issues of the korinmas mass problems and the structure of the universe.

Radio Astronomy. According to the achievements of modern astronomy, the scientific results achieved in radiodiaposon to this day, in addition, it should be recognized that radio astronomy from a huge number of powerful radiotelescopes is formed as a separate independent department. It was then-radio astronomy-that was the department that studied all the bodies of the universe at the length of radio dust. To date, radio astronomy has been considered a branch of Astrophysics in all textbooks. But the radio astronomy network began to develop relatively recently (the 20s of the 40th century), which can be said to have become an independent branch of Astronomy in terms of the breadth of its issues and the originality of its scientific results.

“Numerical simulations have become a major tool for understanding galaxy formation and evolution. Over the decades the field has made significant progress. It is now possible to simulate the formation of individual galaxies and galaxy populations from well-defined initial conditions with realistic abundances and global properties. An essential component of the calculation is to correctly estimate the inflow to and outflow from forming galaxies because observations indicating low formation efficiency and strong circumgalactic presence of gas are persuasive. Energetic “feedback” from massive stars and accreting supermassive black holes—generally unresolved in cosmological simulations—plays a major role in driving galactic outflows, which have been shown to regulate many aspects of galaxy evolution. A surprisingly large variety of plausible subresolution models succeeds in this exercise. They capture the essential characteristics of the”.

“We looked into the very early universe for the first time and had no idea what we were going to find,” Leja said, adding, “It turns out we found something so unexpected it actually creates problems for science. It calls the whole picture of early galaxy formation into question.”

On July 12, NASA released the first full-colour images and spectroscopic data from the James Webb Space Telescope. The largest infrared telescope in space, Webb was designed to see the genesis of the cosmos, its high resolution allowing it to view objects too old, distant or faint for the Hubble Space Telescope.

“When we got the data, everyone just started diving in and these massive things popped out really fast,” Leja said, adding, “We started doing the modelling and tried to figure out what they were because they were so big and bright. My first thought was we had made a mistake and we would just find it and move on with our lives. But we have yet to find that mistake, despite a lot of trying.”

“In the 1920s, astronomer Edwin Hubble discovered that the universe is not static, but rather is expanding. In 1998, the Hubble Space Telescope, named for the

astronomer, studied distant supernovas and found that the universe was expanding more slowly a long time ago compared with the pace of its expansion today.

This groundbreaking discovery puzzled scientists, who long thought that the gravity of matter would gradually slow the universe's expansion, or even cause it to contract. Explanations of the universe's accelerated expansion led to the bizarre and hotly debated concept of dark energy, which is thought to be the enigmatic force that is pulling the cosmos apart at ever-increasing speeds."

"Rubin observed that there was virtually no difference in the velocities of stars at the center of a galaxy compared to those farther out. These results seemed to go against basic Newtonian physics, which implies that stars on the outskirts of a galaxy would orbit more slowly.

Astronomers explained this curious phenomenon with an invisible mass that became known as dark matter. Even though it cannot be seen, dark matter has mass, so researchers infer its presence based on the gravitational pull it exerts on regular matter."

SUMMARY

These sections of astronomy are related to a single field, with advances often providing information and encouraging the study of the relationships of the Galatians. Astronomy in general continues to increase the cosmic talisman, opening up new discoveries and making the concepts of the universe in which we live more widely known. In place of the conclusion, it should be said that the various studies carried out in all areas of astranomy, the current attitude and research in it will help to discover different areas of astranomy again in the future.

REFERENCES:

1.Nuritdinov S. N. "Umumiy astranomiya fanidan o'quv-uslubiy majmua".Toshkent-2017

2.Mamadazimov M. Tillaboyev A va boshqalar," Astranomiya kursi (Umumiy astranomiya)Dan".TDTU 2015yil

3.Sattarov I .<<Astrofizika>> (1 qism darslik).

1.Nuritdinov S.N. "Umumiy astronomiya fanidan o'quv-uslubiy majmua".Toshkent-2017

2.Sattarov I. << Astrofizika>> (1-qism darslik). T.: Iqtisod-moliya, 2009 y

3.Sattarov I. << Astrofizika>> (2-qism darslik). T.: Turon-Iqbol 2007 y

4. Tillaboyev A.M. (2021). Astronomiya fanining ilmiy-tadqiqot yutuqlarini ta’lim tizimiga qo’llashning nazariy asoslari. Academic research in educational sciences, 2(2), 462-466.

5. Tillaboyev A.M. Astranomiya kursini o’qitishda zamonaviy ilmiy-tadqiqot natijalaridan foydalanish metodikasi / Международной научной конференции «Тенденции развития физики конденсированных сред», Фергана, 2021. – С. 492-495.

6. Tillaboyev A.M. Astronomiya kursini elektron ta’lim resurslaridan foydalanib o’qitish metodikasi / “Таълим сифати самарадорлигини оширишда халқаро тажрибадан фойдаланиш: муаммо ва ечимлар” мавзусидаги халқаро илмий-амалий офлайн/онлайн конференция, Чирчиқ, 2021. 490-495 б.