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| 1 | Stars and interstellar medium. |
| 2 | The birth of stars. |
| 3 | Galaxies and quasars. |
| 4 | Clusters of Galaxies. |
| 5 | The use of physical laws to the study of space objects (stars, cosmic, plasma). |
| 6 | Interaction of radiation with matter. |
| 7 | Elementary bases of the interaction of matter and radiation. |
| 8 | Radiative transfer equation and its simple solutions. |
| 9 | Physical processes in celestial sources of radiation. |
| 10 | Nuclear reactions in stars. |
| 11 | Nuclear reactions in astronomical objects. |
| 12 | The main interactions in stars. |
| 13 | The theory of weak interactions. |
| 14 | The theory of strong interactions. |
| 15 | The theory of electromagnetic interactions. |
| 16 | The theory of gravity interactions. |
| 17 | The interactions and reactions of two-particle types. |
| 18 | Energy and mechanisms of nuclear fission. |
| 19 | The structure and properties of neutron stars, quasars. |
| 20 | The explosions of supernovae. |
| 21 | Modern theoretical ideas about the nature of stars and their systems. |
| 22 | Modern problems of astrophysics. |
| 23 | Physical methods of research of space objects. |
| 24 | The use of the achievements of nuclear physics to the study of cosmic phenomena. |
| 25 | Nuclear reactions in astrophysical objects. |
| 26 | Databases on nuclear reactions. |
| 27 | Astrophysical observations. |
| 28 | Nuclear interactions in compact objects. |
| 29 | Physical observables in High Density astrophysical objects. |
| 30 | The latest discoveries and developments in the study of the universe in recent years. |
| 31 | Big Bang Theory (first five minutes). |
| 32 | First nuclear reactions in BBT |
| 33 | Formation and evolution of  Stars |
| 34 | Relict radiations |
| 35 | Fundamental Interactions and Forces. |
| 36 | Physics of Elementary particles |
| 37 | Hadron physics. |
| 38 | Interstellar and stars medium. |
| 39 | The use of physical laws to the study of the universe as a whole. |
| 40 | The explosions of  quasars. |
| 41 | The explosions of  pulsars. |
| 42 | The explosions of  neutron stars. |
| 43 | Astrophysical observations. |
| 44 | The latest discoveries and developments in the study of the universe in recent years. |
| 45 | Physical methods of research of space objects. |