

The Universe of Galaxies 2005

- Jan 25 Tue** =10:00-11:45 room FL74 [=1st lecture=]
Basic concepts in physics and astrophysics relevant to this course. Measuring distances in our Galaxy.
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- Jan 27 Thu** =13:15-15:00 room FL74 [=2nd lecture=]
Remainder of basic facts about stellar structure and evolution. General view of our Galaxy.
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- Feb 01 Tue** =10:00-11:45 room FL74 [=3rd lecture=]
Understanding distribution of matter and rotation in our Galaxy. Matter distribution in our Galaxy: dark matter, spiral structure.
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- Feb 03 Thu** =13:15-15:00 room FL74 [=4th lecture=]
Morphological and physical properties of normal galaxies. How "normal" are such galaxies?
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- Feb 08 Tue** =10:00-11:45 room FL74 [=5th lecture=]
Fundamental concepts relevant to astrophysics of black holes. Circular motion around black holes. Efficiency of accretion. Eddington luminosity.
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- Feb 10 Thu** =13:15-15:00 room FL74 [=6th lecture=]
Basic observational facts about Quasars and other active galactic nuclei. Jets, superluminal motion.
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- Feb 15 Tue** =10:00-11:45 room FL74 [=7th lecture=]
Accretion disks around supermassive black holes.
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- Feb 17 Thu** =13:15-15:00 room FL74 [=8th lecture=]
Observational cosmology: redshift - magnitude and redshift - angular size relations. Microwave background radiation.
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- Feb 22 Tue** =10:00-11:45 room FL74 [=9th lecture=]
Cosmological models. Critical density.
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- Feb 24 Thu** =13:15-15:00 room FL74 [=10th lecture=]
Dark matter. Dark energy.
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- Mar 01 Tue** =NO LECTURE TODAY [=due to MTS days=]
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- Mar 03 Thu** =13:15-15:00 room FL74 [=11th lecture=]
The Big Bang and the history of the Universe.
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- Mar 08 Tue** =10:00-11:45 room FL74 [=12th lecture=]
Problems with the Big Bang cosmology. Inflation.
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- Mar 10 Thu** =13:15-15:00 room FL74 [=13th lecture=]
Formation of structures in the Universe.
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