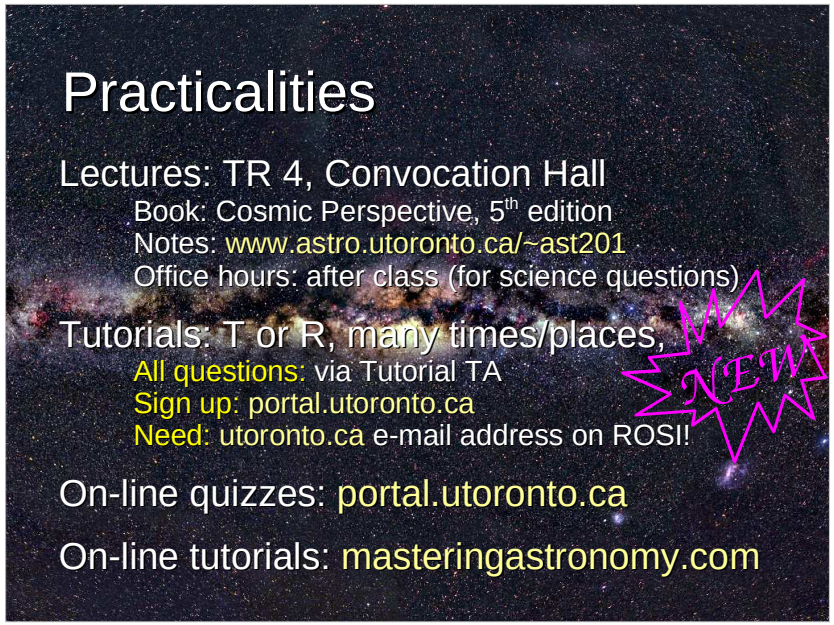
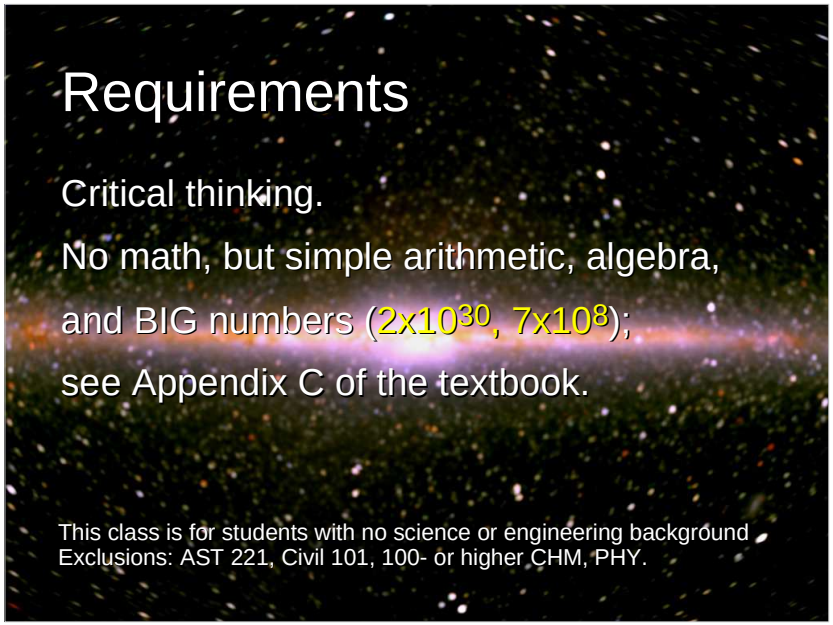
AST 201 is one of two introductory courses in astronomy. You can find the syllabus at http://www.astro.utoronto.ca/~ast201 (also available in PDF).

The picture in the background shows the Sun in extreme ultraviolet light, taken with the SOHO spacecraft. The author of the limerick is unknown.



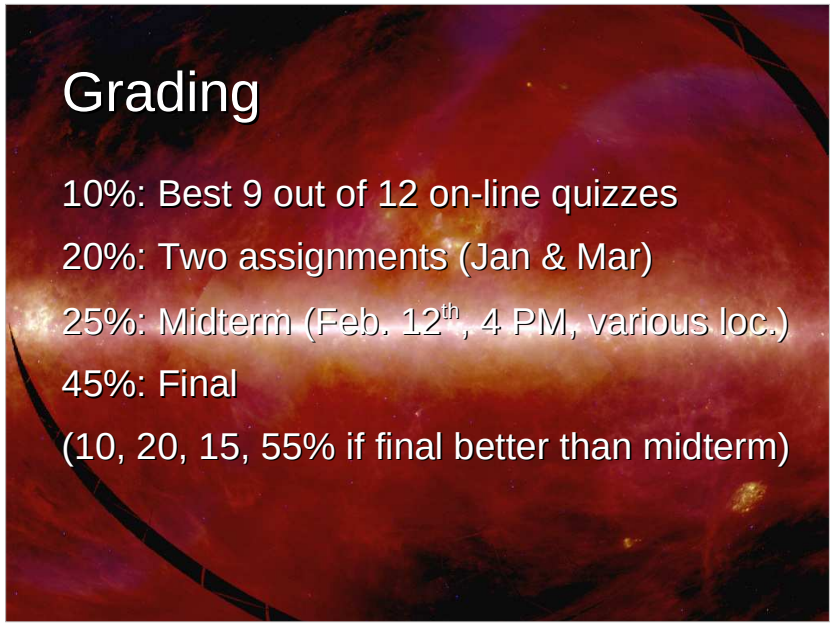
For all details, refer to the on-line syllabus at http://www.astro.utoronto.ca/~ast201 (also PDF). The tutorials are done in smaller groups and are meant to help you understand the material, discuss concepts that may be unclear for assignments, go over exam questions, etc. All contact is via your tutorial TA, so you need to sign up even if you do not intend to attend.
Very helpful online tutorials can be found at www.masteringastronomy.com; we strongly recommend you do them. Some of the questions will be used for quizzes and exams.

In the background, the sky towards the centre of our Galaxy in optical light. From NASA's Multi-wavelength Milky Way.



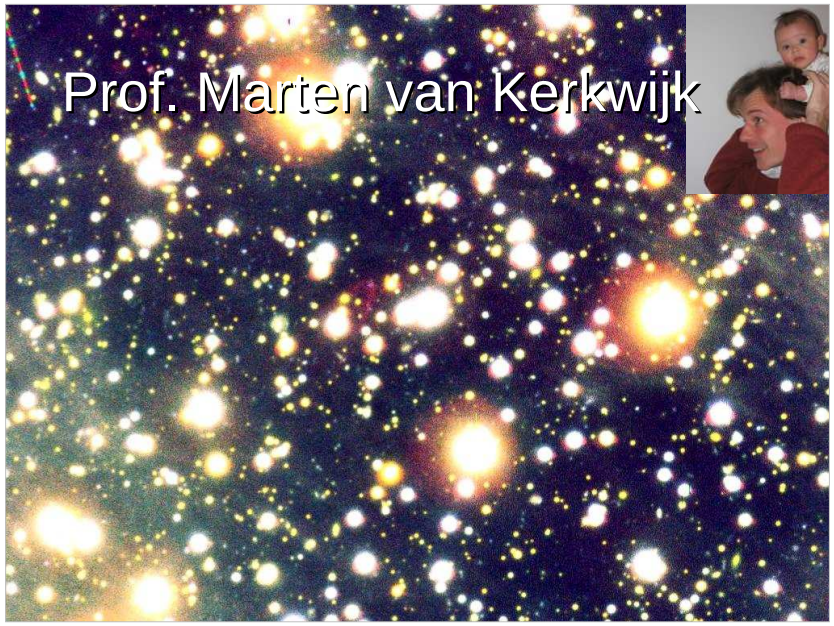
For all details, refer to the on-line syllabus (PDF).

In the background, the sky towards the centre of our Galaxy in near-infrared light. From NASA's Multi-wavelength Milky Way.



For all details, refer to the on-line syllabus (PDF). The assignments will be combinations of short essays and non-mathematical problem sets.

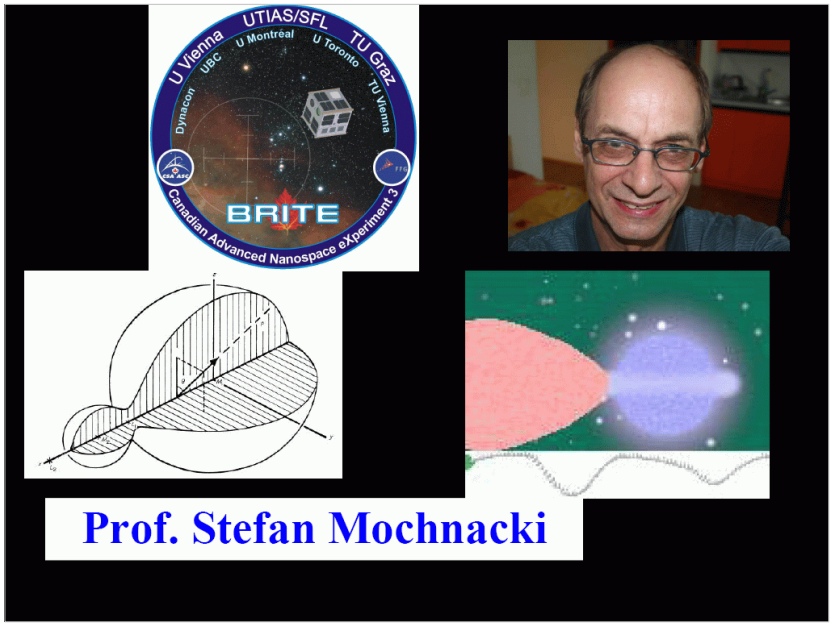
In the background, the sky towards the centre of our Galaxy in far-infrared light. From NASA's Multi-wavelength Milky Way.



For all details, refer to the on-line syllabus (PDF). This has a schedule, which lists the chapters to be read in advance of class/tutorial.

In the background, the sky towards the centre of our Galaxy in X-ray light. From NASA's Multi-wavelength Milky Way.

For science questions, please see the professor after class. For all other questions, contact your TA at the tutorial or via the group-specific e-mail address. See the on-line syllabus (PDF).



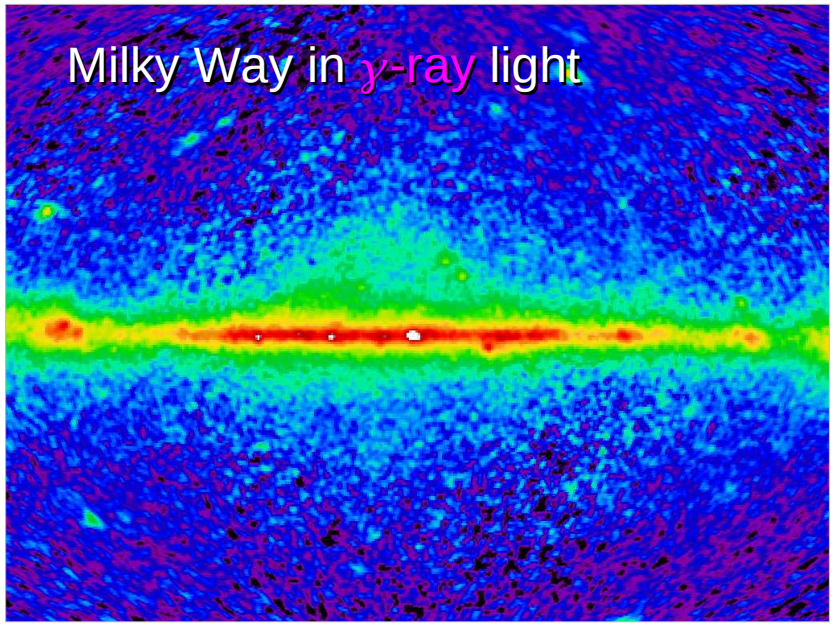
For science questions, please see the professor after class. For all other questions, contact your TA at the tutorial or via the group-specific e-mail address. See the on-line syllabus (PDF).

A bit more on those images In the background, taken from NASA's Multi-wavelength Milky Way. They show the sky towards the centre of our own Galaxy, the Milky way. In visible light, one sees stars, many stars, though some are obscured by interstellar dust.

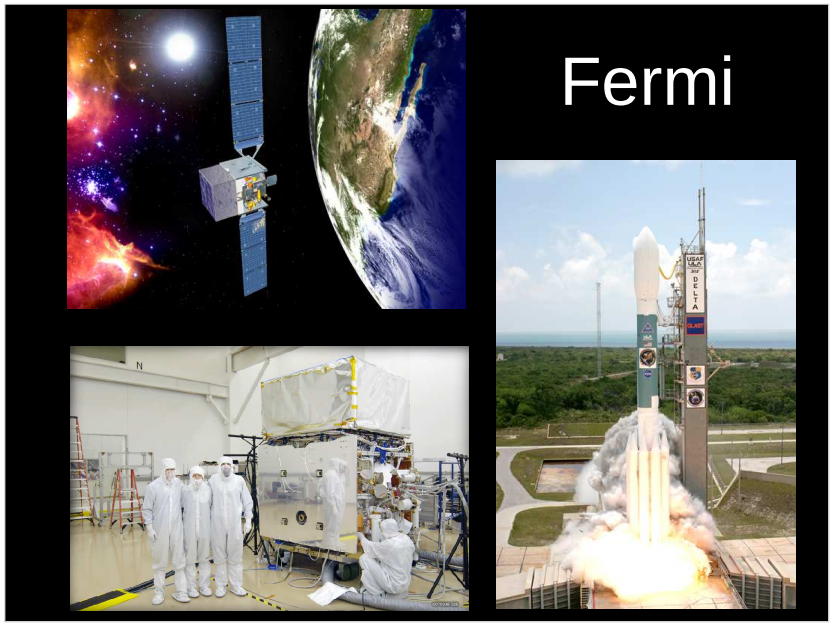
In near-infrared light, it is easier to peer through the dust, and one can see many more stars, and the glow from the “bulge” of our Milky Way.

In far infrared light, we see radiation from the dust, heated by the stars. The dust is all located very close to the plane of our Galaxy (we'll get back to this later in the course!). The haze is from dust grains much closer, all around us. The strange S-like shape from grains in our own solar system, in the asteroid belt.

Now going to more energetic light, in X rays we see very hot, glowing gas, mostly nearby, as well as individual sources, all very energetic, mostly neutron stars and black holes.

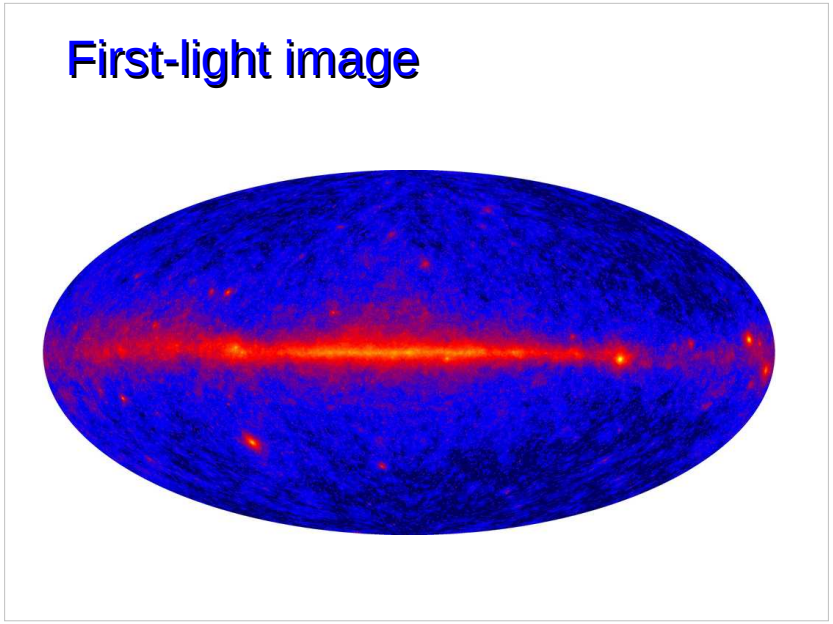


Extremely energetic light is emitted only by the most extreme objects, so almost all you see comes from neutron stars and black holes. The sources away from the Milky Way plane are supermassive black holes in other galaxies. Of course, we'll deal with all of these in this course!



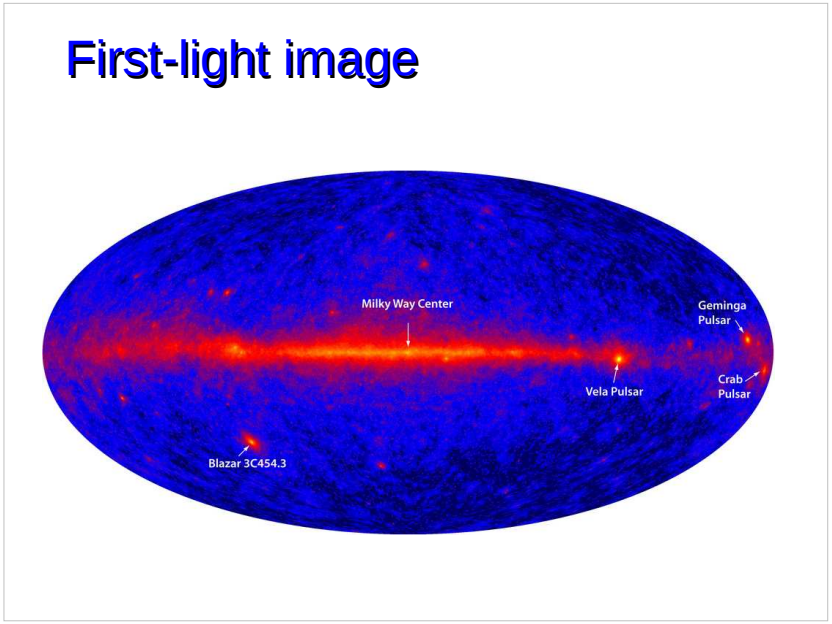
A new telescope, “Fermi,” which is much more sensitive to gamma rays than previous observatories, has just been launched. We hope to show some first results during the course!

Images from NASA's Fermi web site.



For now, there is only the first-light all-sky image, better than what was available in just a few days of exposure.

Taken from NASA's set of Fermi science images.



The brightest sources are nearby neutron stars in the Milky Way plane, and supermassive black holes in so-called “blazars” away from it.

Taken from NASA's set of Fermi science images.

But 2009 is special for astronomy for another reason: it is the international year of astronomy. See www.astronomy2009.org.

Here at UofT, Prof. Jayawardhana has organised coolcosmos.net, which you will see soon in the TTC. It has a launch party at the gladstone hotel.