

Education and Careers in Physics in Newfoundland and the World

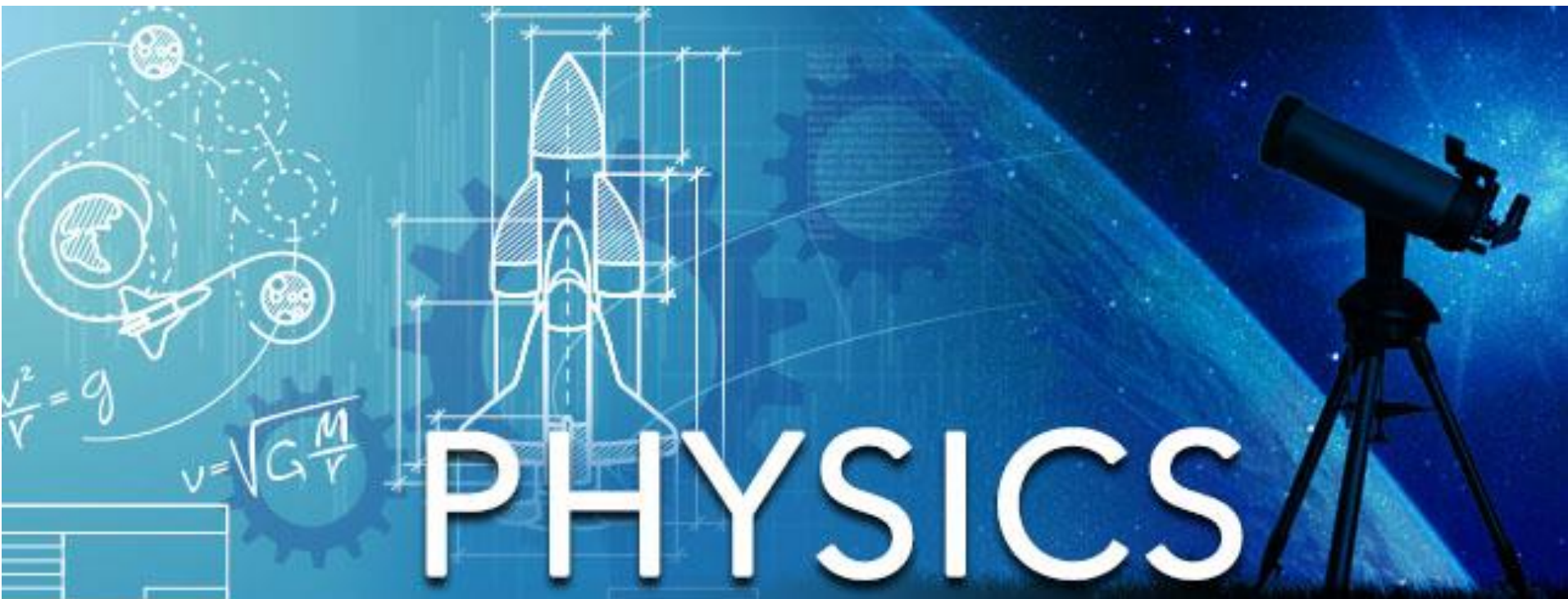
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GRENFELL
CAMPUS



Fields of Physics: Acoustics, Astronomy, Astrophysics, Cosmology, Atomic, Nuclear and Particle Physics, Biophysics, Medical Physics, Chemical Physics, Computational Physics, Electronics, Geophysics, Meteorology, Mechanics, Optics, Quantum Physics, Thermodynamics, Statistical Mechanics, Relativity, String Theory etc.



Canada got three Nobel Prizes in Physics in the last five years!



[Arthur B. McDonald](#), 2015, "for the discovery of neutrino oscillations, which shows that neutrinos have mass"

[Donna Strickland](#), 2018, "for ground-breaking inventions in the field of laser physics"

[James Peebles](#), 2019, "for theoretical discoveries in physical cosmology"

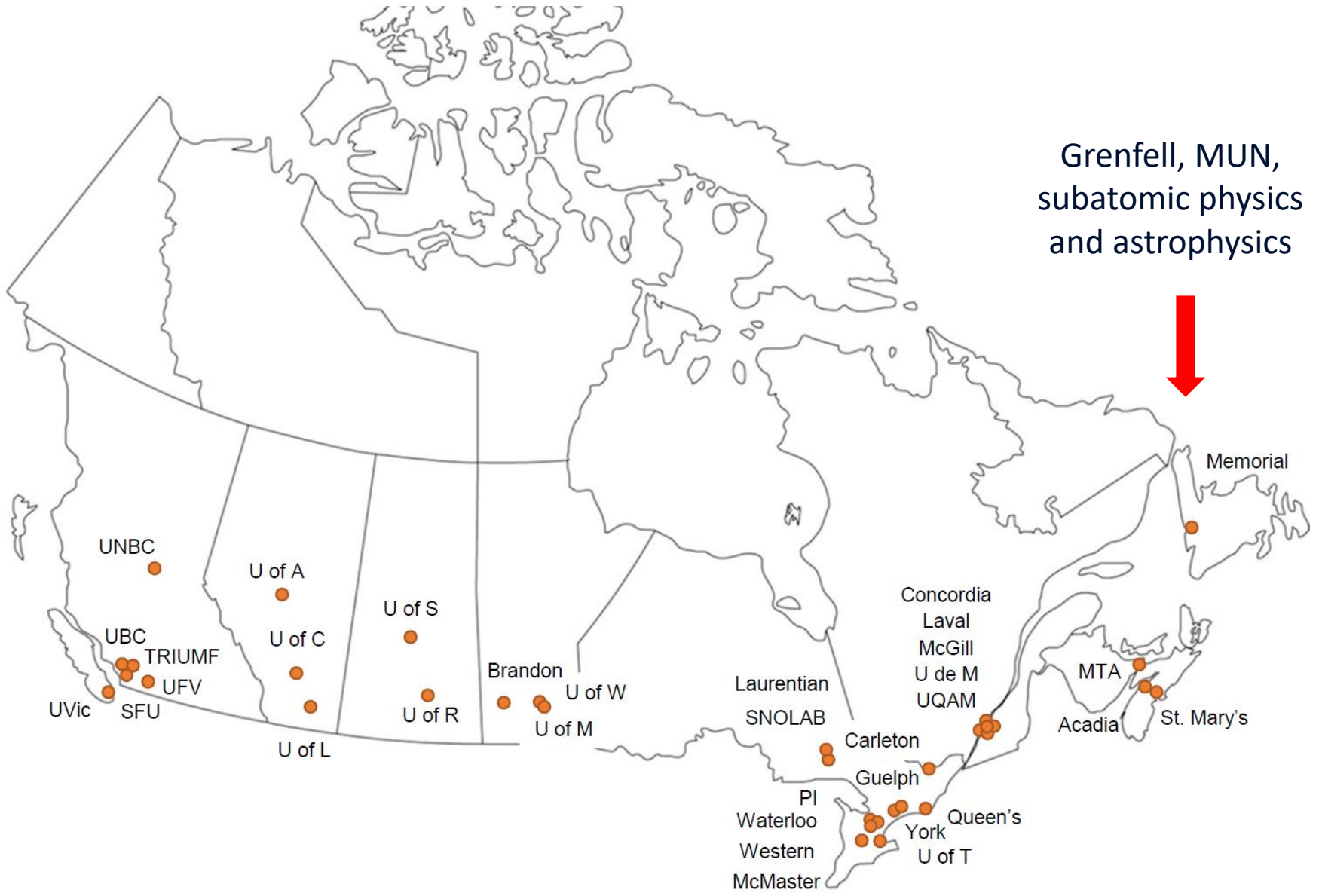
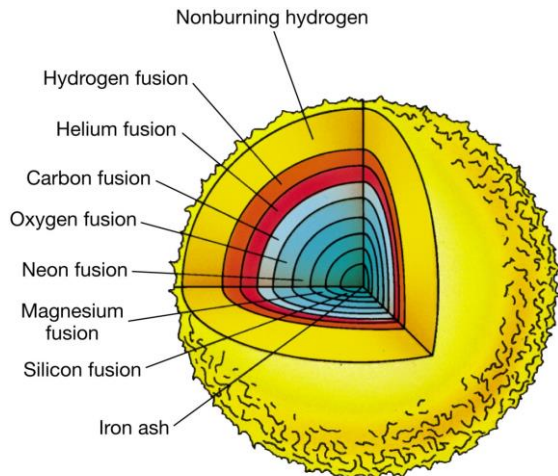


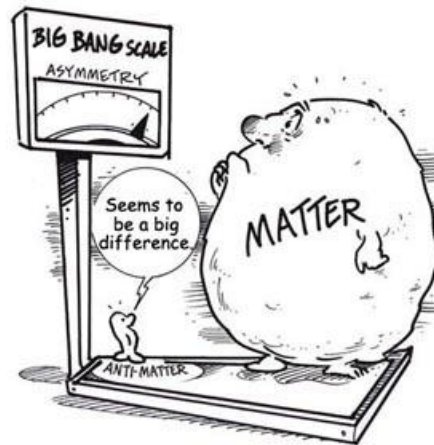
Fig. 1, "Community Profile", Canadian Subatomic Physics Long Range Plan 2017-2021

Still many unanswered questions:

- How heavy elements are produced in the Universe?
- Why does matter dominate over anti-matter?
- What physics, if any, exists beyond the Standard Model of Particle Physics?
- What is the nature of Dark Matter?



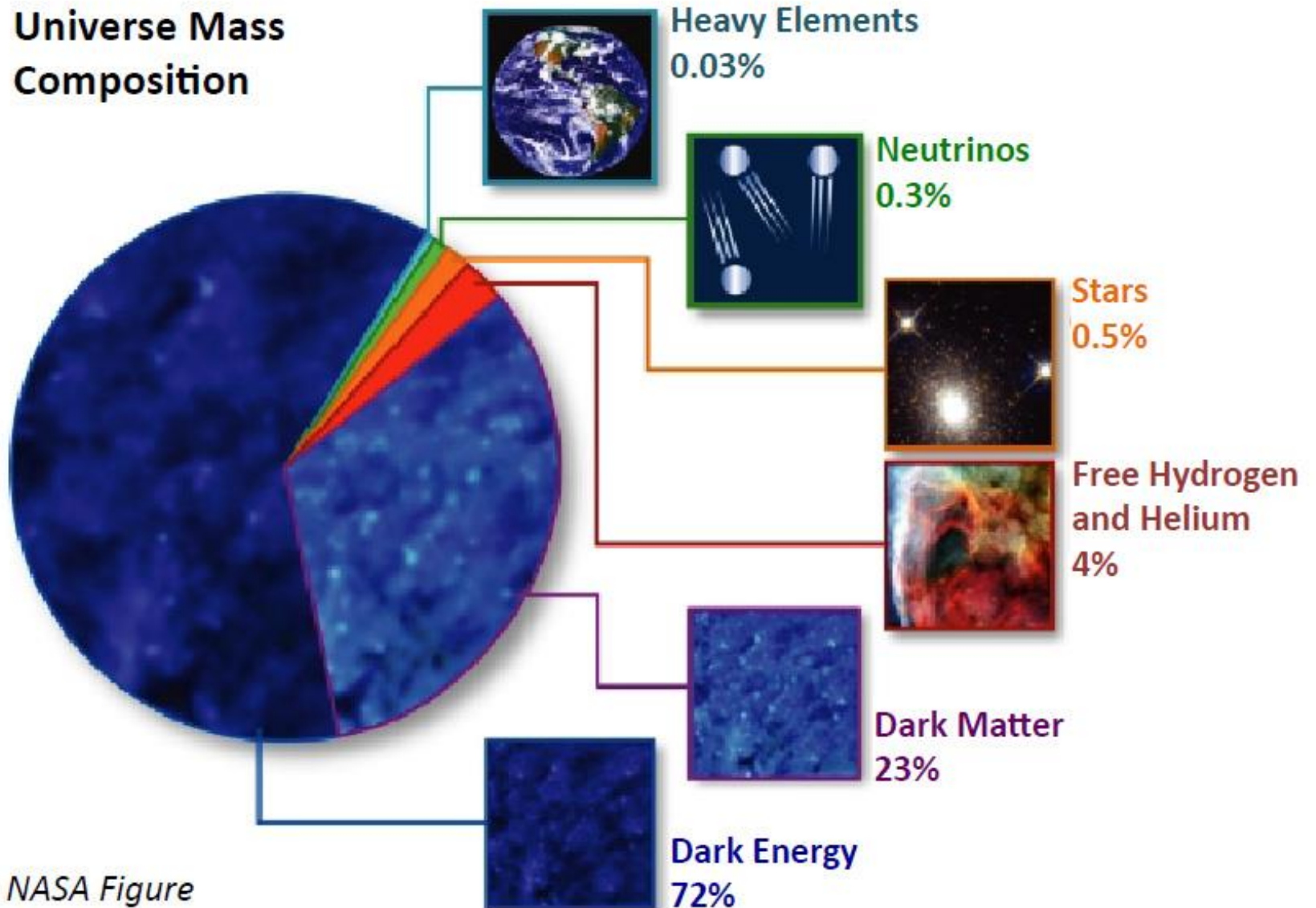
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	Quark	Neutrino	Exotic	Other
66"				183 cm
60"				177.5 cm
56"				172.5 cm
50"				167.5 cm
46"				162.5 cm
40"				157.5 cm
36"				152.5 cm
30"				147.5 cm

"All right... which of you punks is responsible for dark matter?"

Universe Mass Composition



NASA Figure

Come and explore the Universe with us!

We have streams in subatomic physics and astrophysics, small classes taught by leading world experts, and research opportunities for students at all levels. Online and remote course delivery.

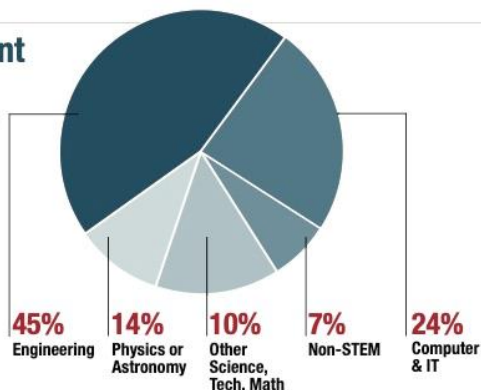
The Power of Physics

A Physics Masters Degree Opens Doors to Different Career Paths

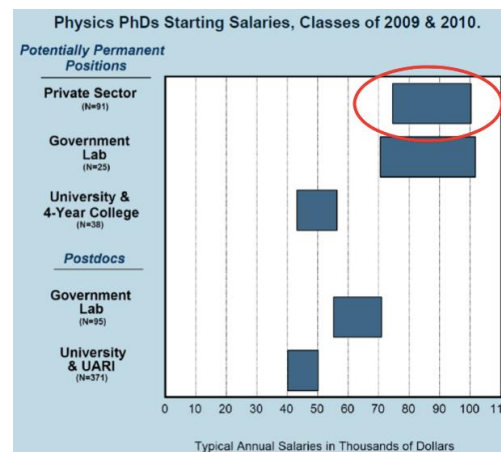


Employment Sector of Physics Master's Degrees

aip.org/statistics



Learn more: go.aps.org/deeperInSight



In US, www.aps.org/careers

There is a shortage of physicists in almost all parts of Canada, and this situation will become even more acute in the next decade. And even if you wish to pursue another career, getting a Physics degree gives you an edge in national or international examinations:

Average MCAT Scores* by Selected Majors, 2012

	Physical Science	Biological Science	Verbal Reasoning	Number of Applicants
Economics	10.8	10.8	9.9	633
Physics	11.1	10.4	9.8	228
Biomedical Engineering	11.1			
Mathematics	10.6			
Electrical Engineering	10.9			
Neuroscience	10.1			
English	9.6			
Biochemistry	10.1			
Chemistry	9.5			
Microbiology	9.2			
Psychology	9.1			
Biology	9.0			
Premedical	8.3			
All Majors	9.5			

Average LSAT Scores* by Selected Majors, 2012

	Average Score*	Number of Applicants
Mathematics	162.2	254
Physics	162.1	126
Economics	159.1	2,468
Engineering	157.3	1,127
Chemistry	156.7	267
History	156.7	3,323
English	155.8	3,728
Biology	155.2	1,095
Political Science	154.3	12,215
Psychology	153.3	3,335
Computer Science	152.3	327
Pre-Law	149.0	994
Criminal Justice	145.3	2,878
All Majors	153.6	66,197

<https://www.uregina.ca/science/physics/careers/index.html>