

# Physics – Different career paths

Canadian Conference for Undergraduate Women in Physics  
(CCUWiP)

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# Choosing physics... why?

- If like me you chose to study sciences, physics furthermore, I guess you must...
- ... be very curious
- ... enjoy intellectual challenges
- ... be persevering... sometimes obstinate?
- ... be a little nuts!

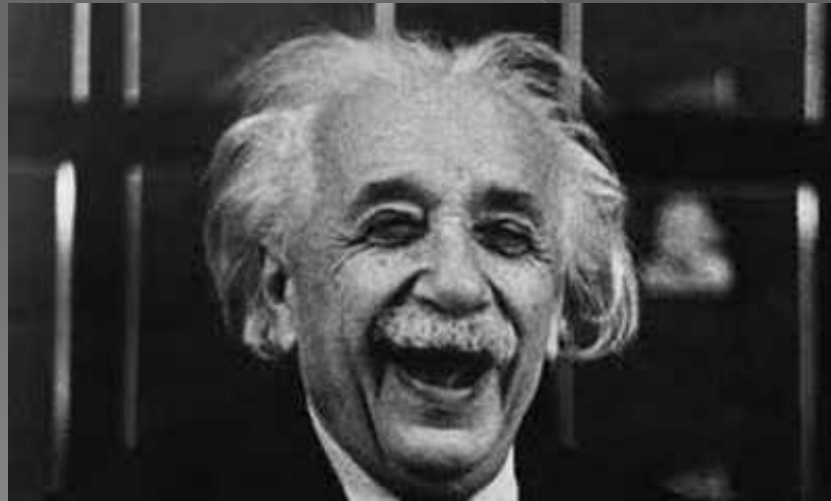


Me, age 1



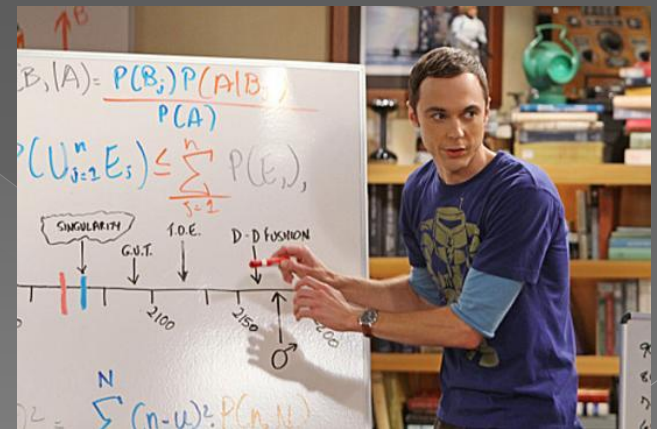
# My experience

- ◉ Cegep – Sciences
- ◉ One of my physics teachers really looked like...



# My experience

- ◉ **Bachelor of Science – Joint Major in Physics and Physiology**
  - Most credits in maths, physics, physiology
- ◉ **Main skills I've learned... that still serve me and are appreciated by employers (even in HR!)**
  - Critical thinking
  - Analysis capabilities / systemic thinking
  - Planning / team work
  - Problem solving
  - Strategic thinking
  - Creativity
- ◉ **Few optional credits – explored other fields... social psychology, French literature, biomedical ethics, astrobiology,...**



# Competency profile – Organizational development counsellor (Government of Quebec)

- **Critical thinking and problem solving**
- Counselling
- **Strategic thinking**
- Interpersonal relationships
- **Planning**
- **Creativity**
- Oral communication
- Concertation et divergence management
- Self development
- Adaptation
- Sense of responsibility
- **Team work**

# 180 degrees change!

## Social sciences

- ◉ Other strong interests: counselling, helping relationship, human systems
- ◉ Options I checked: Health administration, orthophony, bioethics, biomedical physics, science journalism, etc.
- ◉ Common point: the Human!
- ◉ Discovering Human Resources...

# Discovering Human Resources

- ◉ **Master of Science in Administration – Human Resources Management (HEC Montréal)**
  - Why? Highlight on strategic component, met my other interests, quick entrance into the program, school reputation and placement rate, lots of work possibilities

# Work experience

- **Government of Quebec, Human resources counsellor/organizational development**
  - Department of Municipal Affairs, Regions and Land Settlement
  - Department of Finances and Economy
- **What I do everyday**
  - Change management
  - Career development
  - Managers' coaching
  - Training
  - Program development



# Careers after physics

"I reckon that physicists can do pretty much anything. Our training can be applied to almost any activity, and it allows us to see things in ways that might not be obvious to others"

*Simon Singh, science writer and broadcaster.*

## Some careers related to physics (generally with some additional studies)

- Physics! (fundamental / applied research, industrial, material, electrical, chemical,...)
- Engineering (aerospatial, civil, biomedical, sustainable development, mechanical, electrical, metallurgical, mining, etc.)
- Geomatics
- Architecture, urban planning
- Teaching physics (high school, cegep, univ,...)
- Environmental and climate jobs
- Health jobs (research, biophysicist, ...)
- Information technology jobs
- Sales / Marketing jobs (scientific devices, pharmaceuticals,...)
- Scientific journalism
- Medicine
- ...

**A nice reference:**

<http://www.physics.org/careers.asp?contentid=381>

## Careers non related to physics (additional studies required)

- Administration (human resources, accounting / finance, economics, business intelligence, operation management, international business, marketing, ...)
- Law
- Arts and entertainment
- All others...

**N.B.:** Some graduate programs do not require to complete an entire undergraduate program to get admitted... look for admission requirements and don't hesitate to call to be sure.

# Governments of Quebec or Canada

## Work possibilities

- ◉ **Surprisingly... all professions represented**
- ◉ **Amazing mobility**
- ◉ **Some options for physicists:**
  - Physicist: environment protection, hygiene, workplace health and security, research and development, mines, public security, industry, agriculture, ...
  - Geomatics (land surveyor)
  - Security inspector
  - Etc.
- ◉ **Infinite options for other profiles / mixed profiles**

# My little piece of advice...

- ◉ Process of entering the government : must-do tests, lists and applications (see document)
- ◉ My suggestion: meet with a career counsellor at least once, even if you're pretty sure where you're going (McGill CaPS or your university counselling service, local employment centers, independent counsellors, etc.)
- ◉ Grab opportunities when they show up
- ◉ Don't worry too much about your career choice!

**Thank you!**