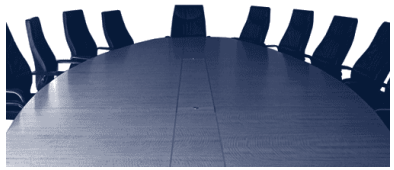
Life as an academic
- roundtable discussion



Department of Physics and Astronomy
Stony Brook University

Conference for Undergraduate Women in Physics
18 January 2014

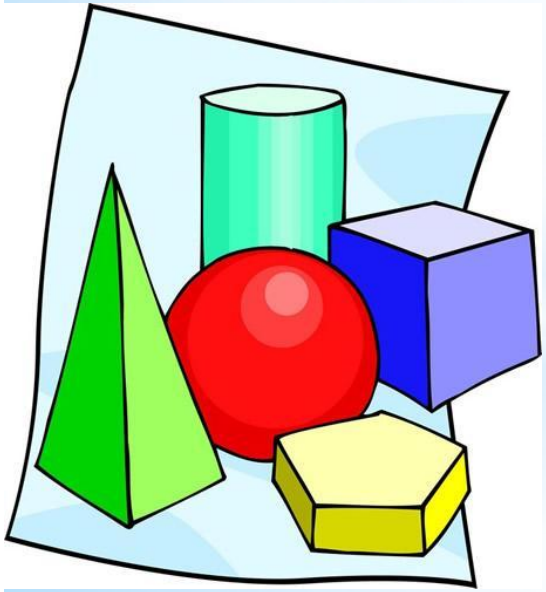
Part I Panel Members Introduction

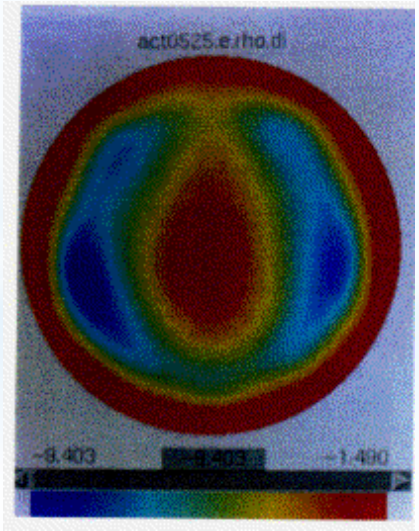
- Grad students: Alyssa Montalbano, Betul Pamuk
- Postdocs: Ali Hanks, Mariola Lesiak-Bzdak,
- Faculty: Martin Rocek, Marivi Fernandez-Serra, Joanna Kiryluk

Alyssa Montalbano

Graduate Student

STONY BROOK UNIVERSITY




act0525.e/rho.dl
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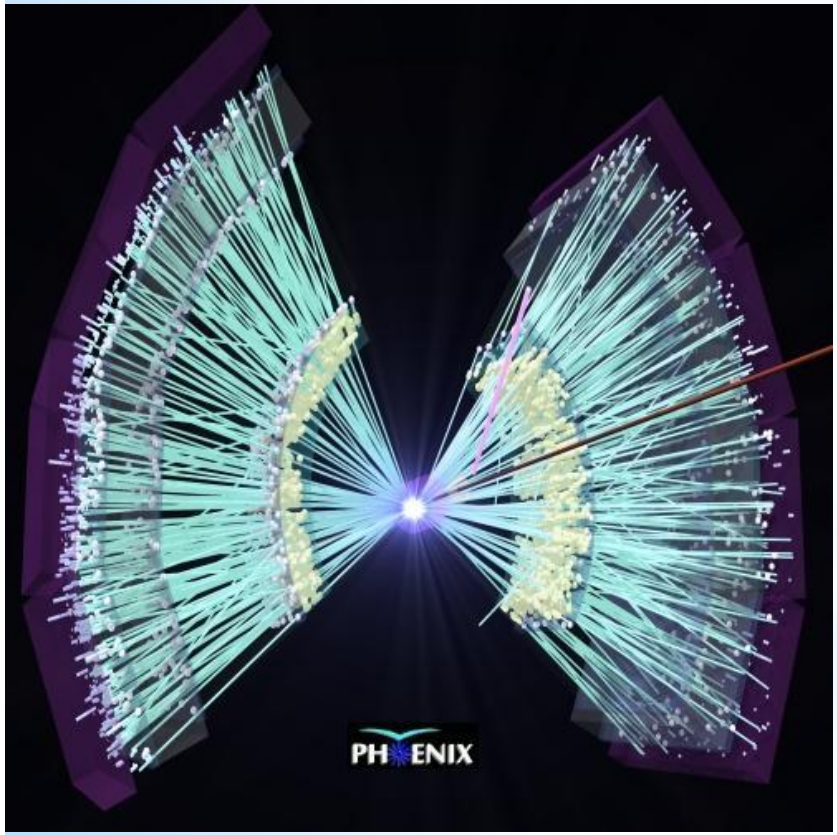
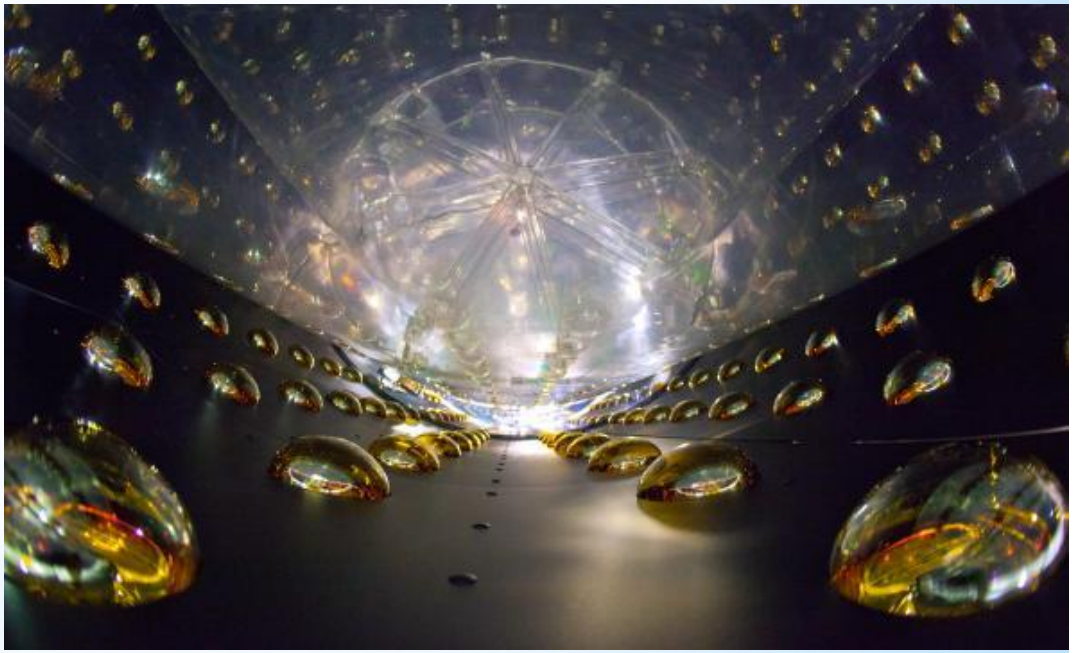
-1.490


ν_e
ν_μ
ν_τ
ν_1
ν_2
ν_3

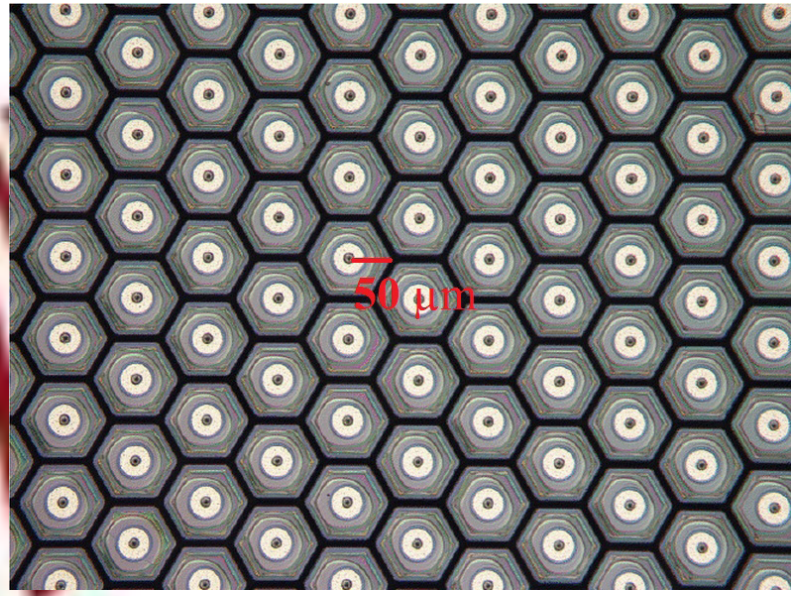
BROOKHAVEN
NATIONAL LABORATORY

SULI

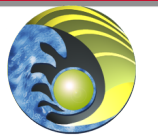





ATLAS Experiment


50 µm


NORTH KOREA
Pyongyang
SOUTH KOREA
SEA OF JAPAN
HONSHU
JAPAN
Kyoto
Nagoya
Kobe
Osaka
Tokyo
Hiroshima
Yokohama
Fukuoka
SHIKOKU



Betül Pamuk

Graduate Student

Condensed Matter Physics

Department of Physics and Astronomy

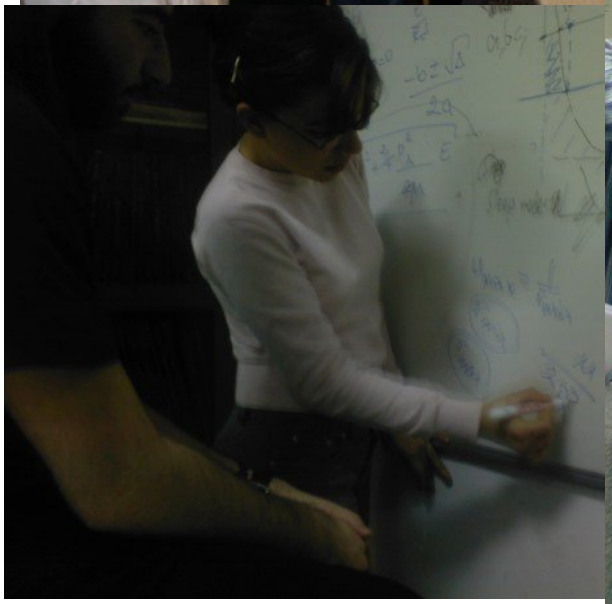
Stony Brook University

Elementary School

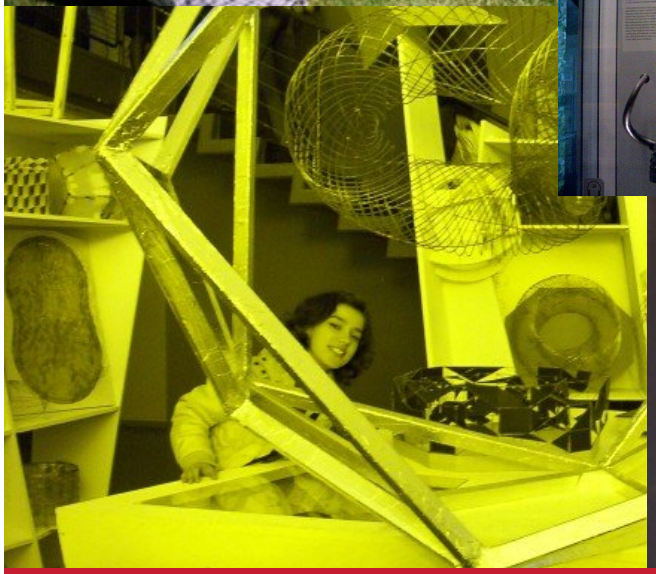
Elementary School

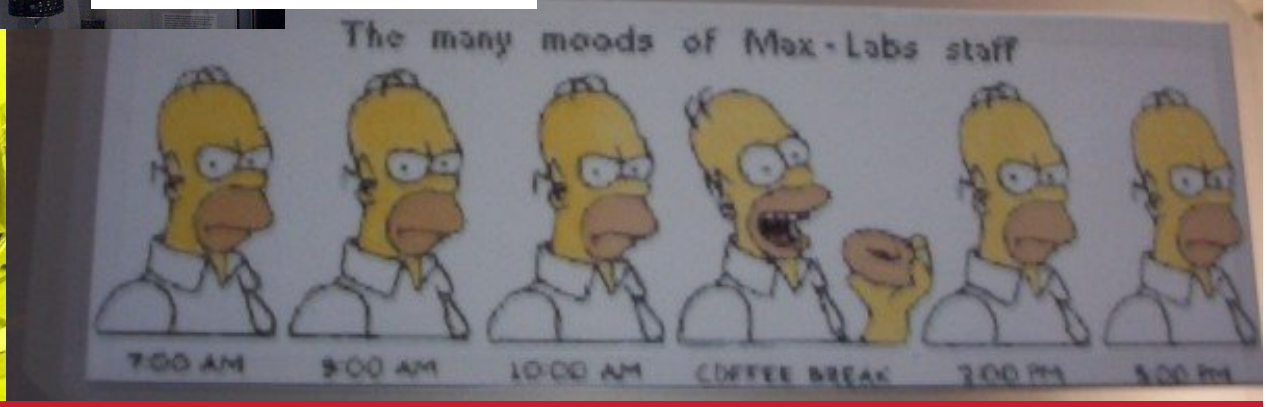
High School

Undergrad: Bilkent University, Ankara

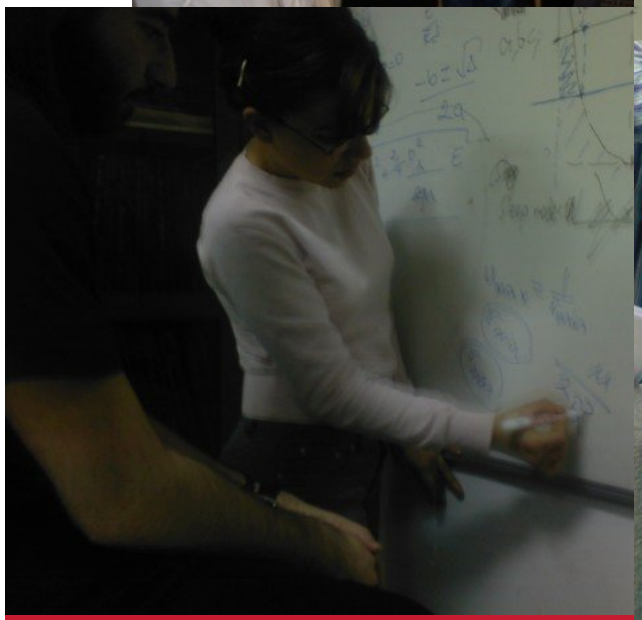


Undergrad: Lund University, Sweden



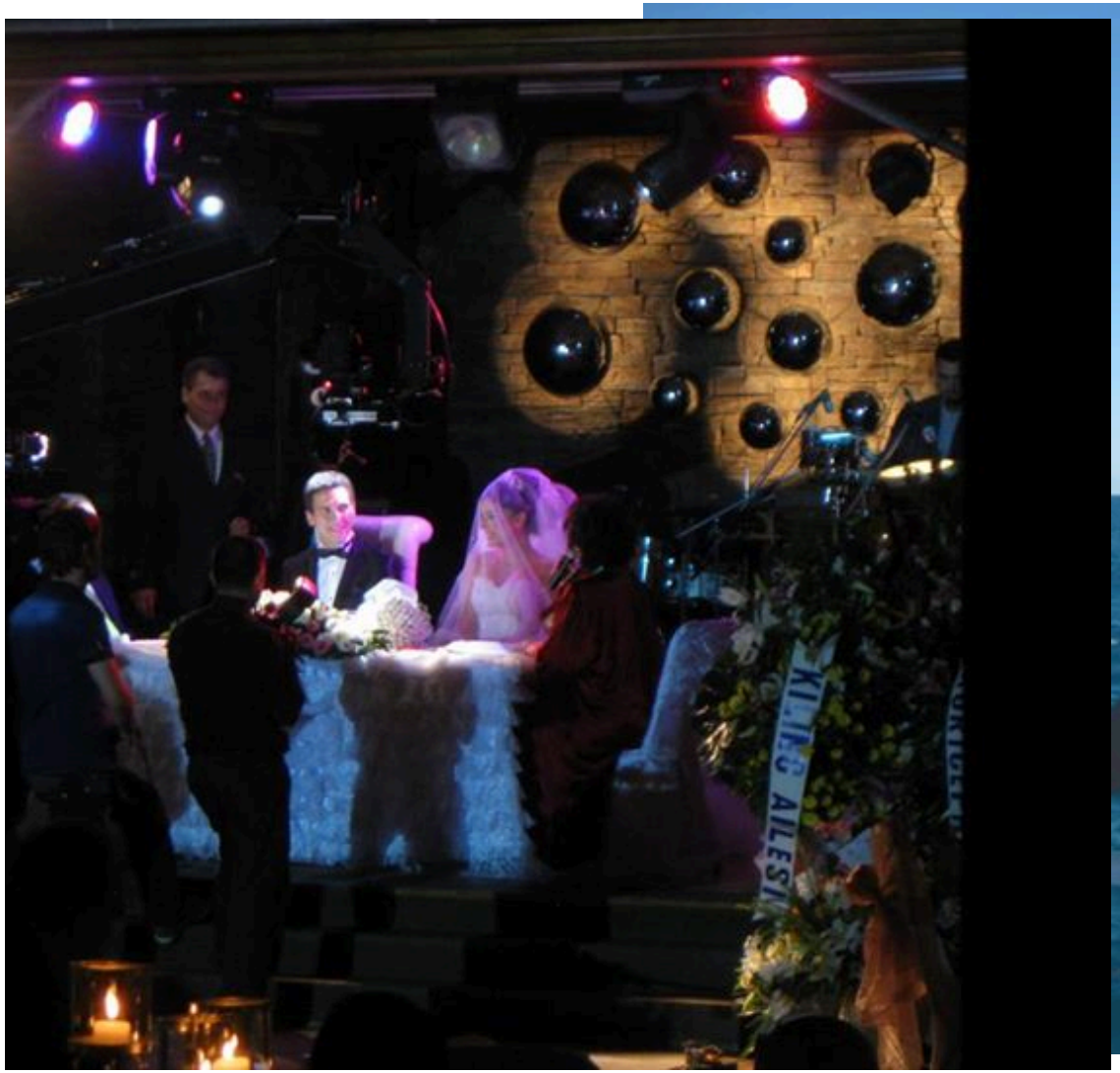


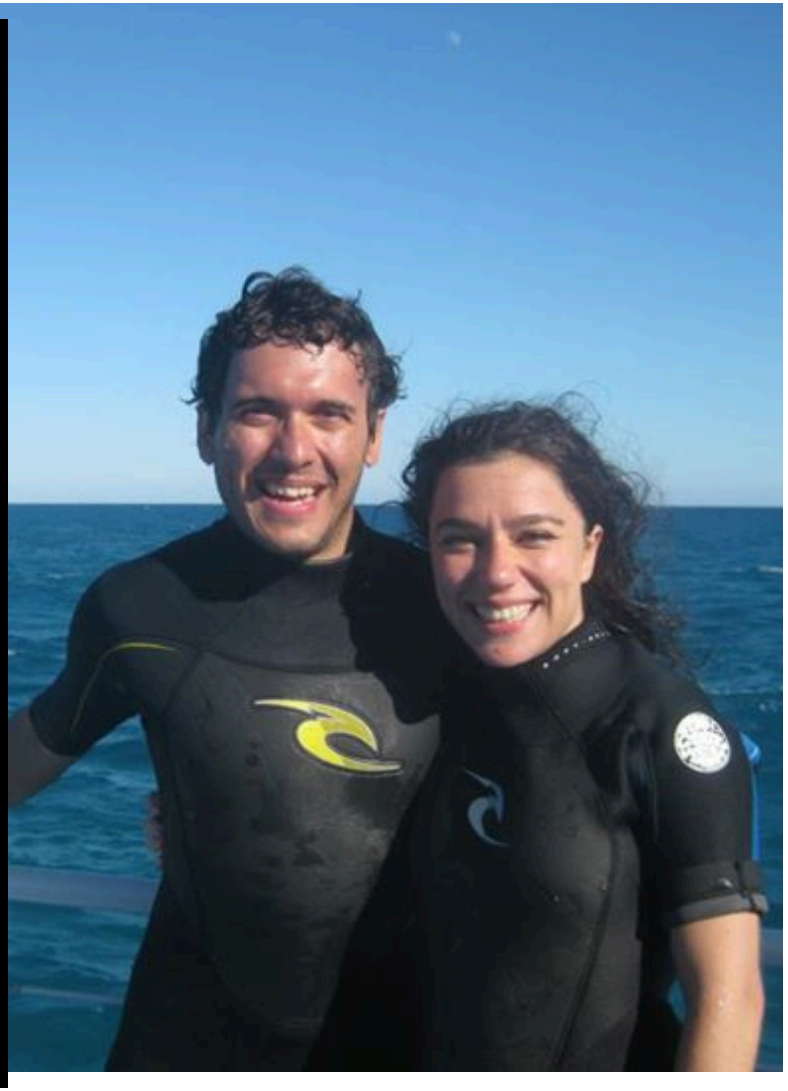
Undergrad: Bilkent University, Ankara



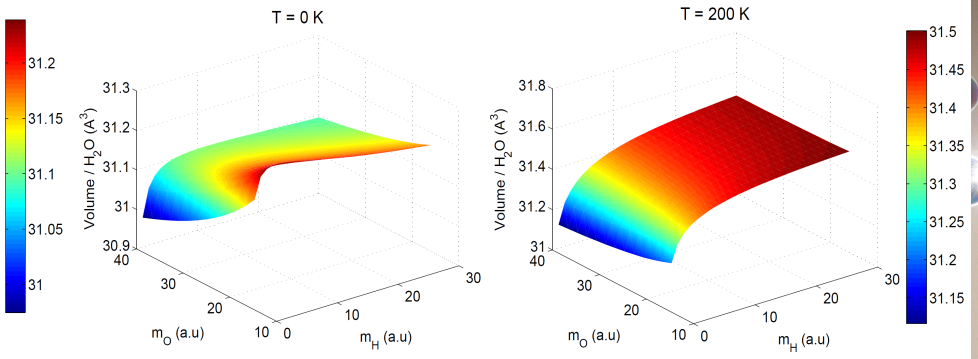
Grad: Stony Brook University, NY

LIFE: Stony Brook University, NY



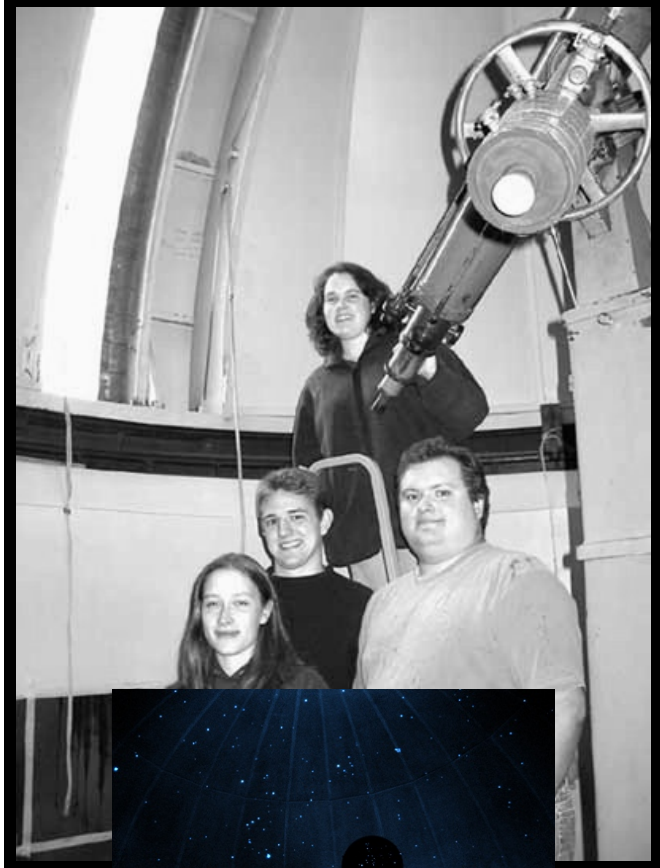


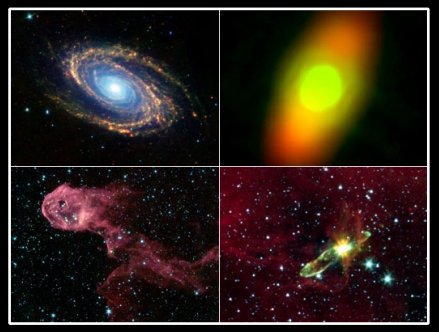
Research: Stony Brook University, NY

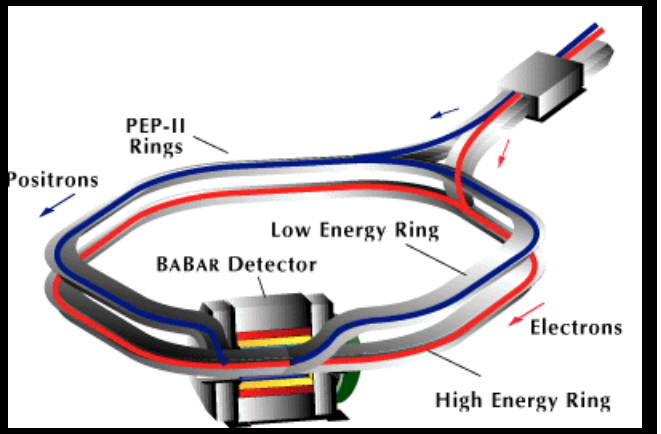


Dr. Ali Hanks
Postdoctoral Researcher
Experimental Nuclear Physics
Stony Brook University

Undergrad

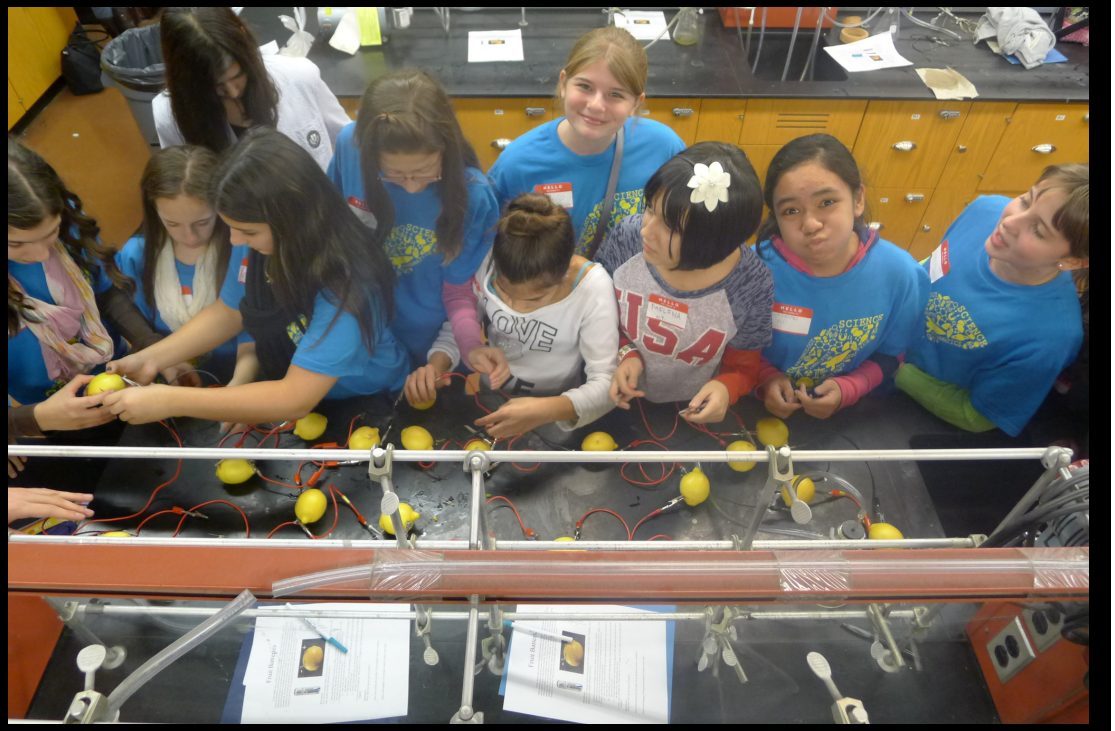





PEP-II
Rings
Positrons
Low Energy Ring
BABAR Detector
Electrons
High Energy Ring

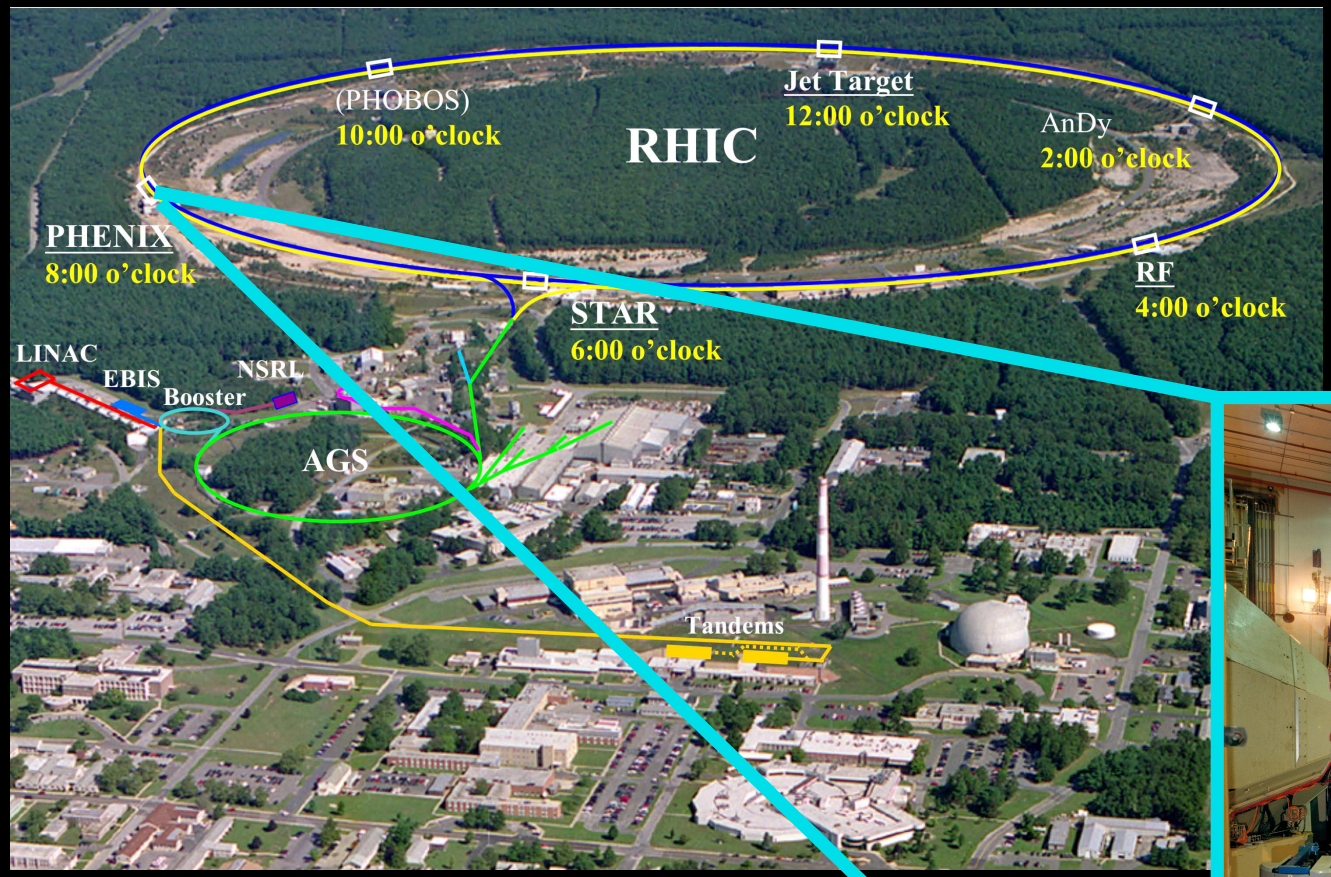
COLUMBIA UNIVERSITY

Grad school



WISC Women in Science @ Columbia

Research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10:00 o'clock
RHIC
Jet Target
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AnDy
2:00 o'clock
PHENIX
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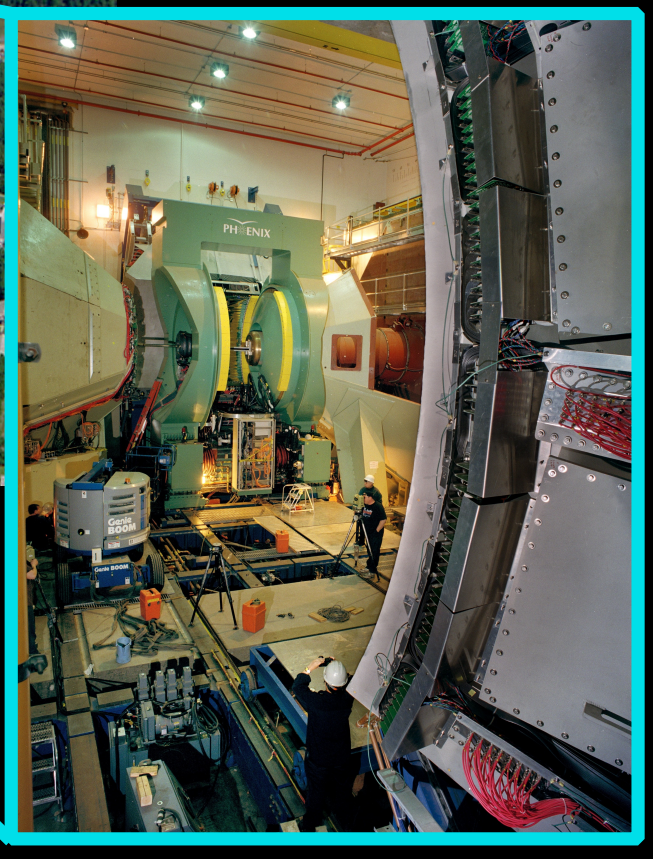
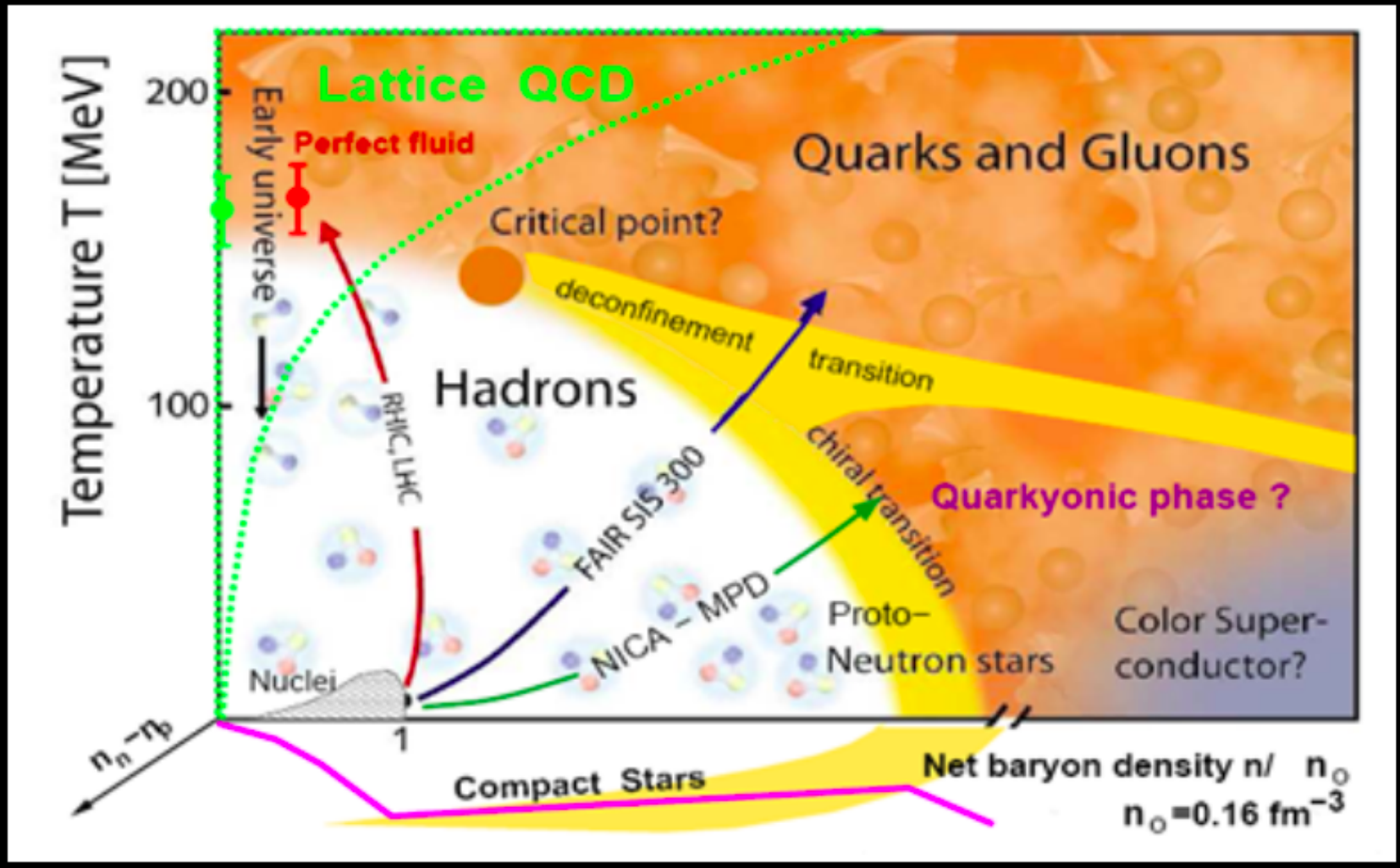
RF
4:00 o'clock
STAR
6:00 o'clock
LINAC
EBIS
Booster
NSRL
AGS
Tandems


PHENIX

A new state of matter!

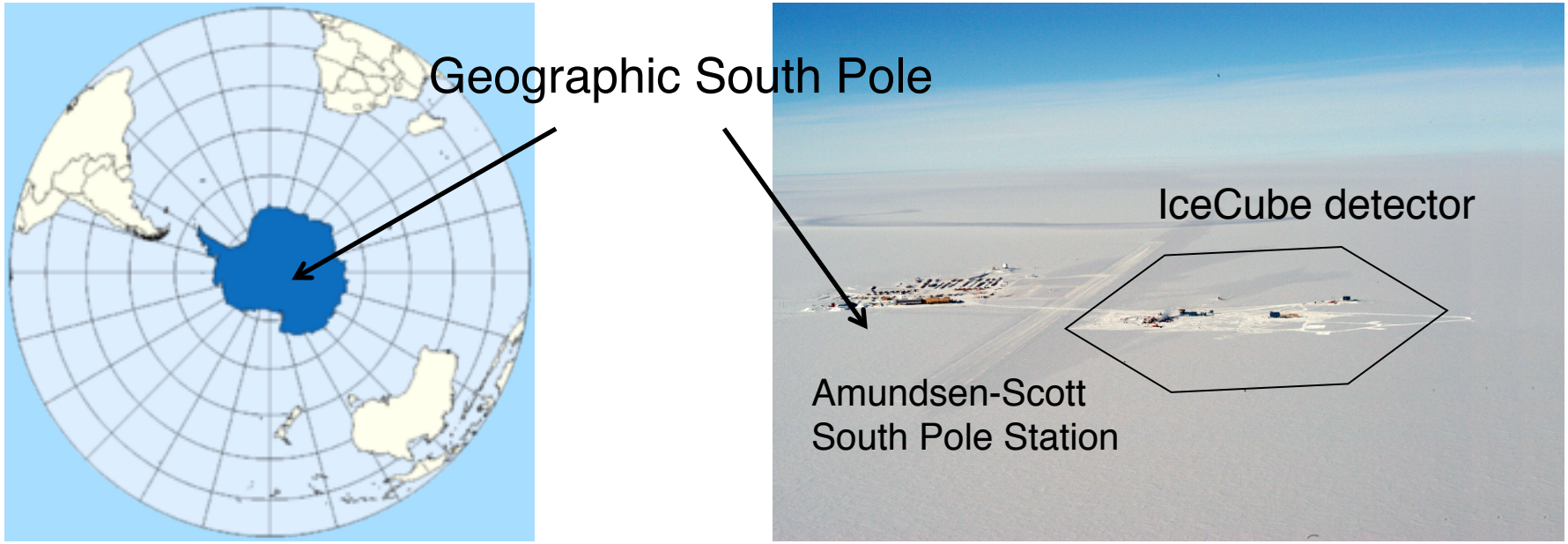


Life and Science

Dr. Mariola Lesiak-Bzdak

PostDoctoral researcher @ Stony Brook University

IceCube Neutrino Telescope



High School –
physics teacher

Undergraduate
Physcis Studies at
Jagiellonian University

Worked
hard

Met my
husband ☺

Scientific
projects

HADES

JÜLICH
FORSCHUNGSZENTRUM

Summer
School

GSI

Master of Science

High School – physics teacher

Undergraduate Physcis Studies at Jagiellonian University

Worked hard

Met my husband ☺

Scientific projects

HADES

JÜLICH FORSCHUNGSZENTRUM

Summer School

GSI

Master of Science

PhD Studies @ JU

Teaching Assistant

Took Advanced Physics Classes

2-year scholarship in G

JÜLICH FORSCHUNGSZENTRUM

GERMANY

Worked on hardware and software

Meetings and Conferences

DPG

JINR

BARC

Back in Krakow to finish analysis

KRAKÓW krakow.pl

High School – physics teacher

Undergraduate Physcis Studies at Jagiellonian University

Worked hard

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KRAKÓW krakow.pl

Moved with husband to Canada

OILERS

Job outside academia

EDMONTON SUN edmontonsun.com

Finished writing PhD thesis

Polska www.poland.gov.pl

Back in Poland

PhD thesis defence

Job outside academia while waiting for California ☺

STATE STREET

Husband got a job @ LBNL in Berkeley, CA

High School – physics teacher

Undergraduate Physcis Studies at Jagiellonian University

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Met my husband ☺

Scientific projects

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Voluntary work on IceCube @ LBNL

BERKELEY LAB

ICECUBE

Physics Analysis

Meetings and Conferences

APS

Growing Family ☺

Moved to Long Island

I ♥ NY

PostDoc in IceCube

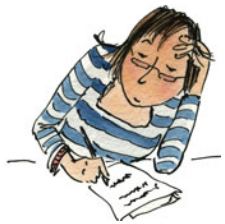
Stony Brook University

STONY BROOK UNIVERSITY

Reading scientific papers

Work on my analysis (writing code, making plots and analyzing them) and its publication

Phone call meetings



Writing reviews of other analyses

Attend seminars

Prepare presentations for meetings/conferences

Martin Rocek
Professor
Theoretical Physics
Supersymmetry, String theory
Stony Brook University

Graduation 1975

Baby 1987

Portable bed

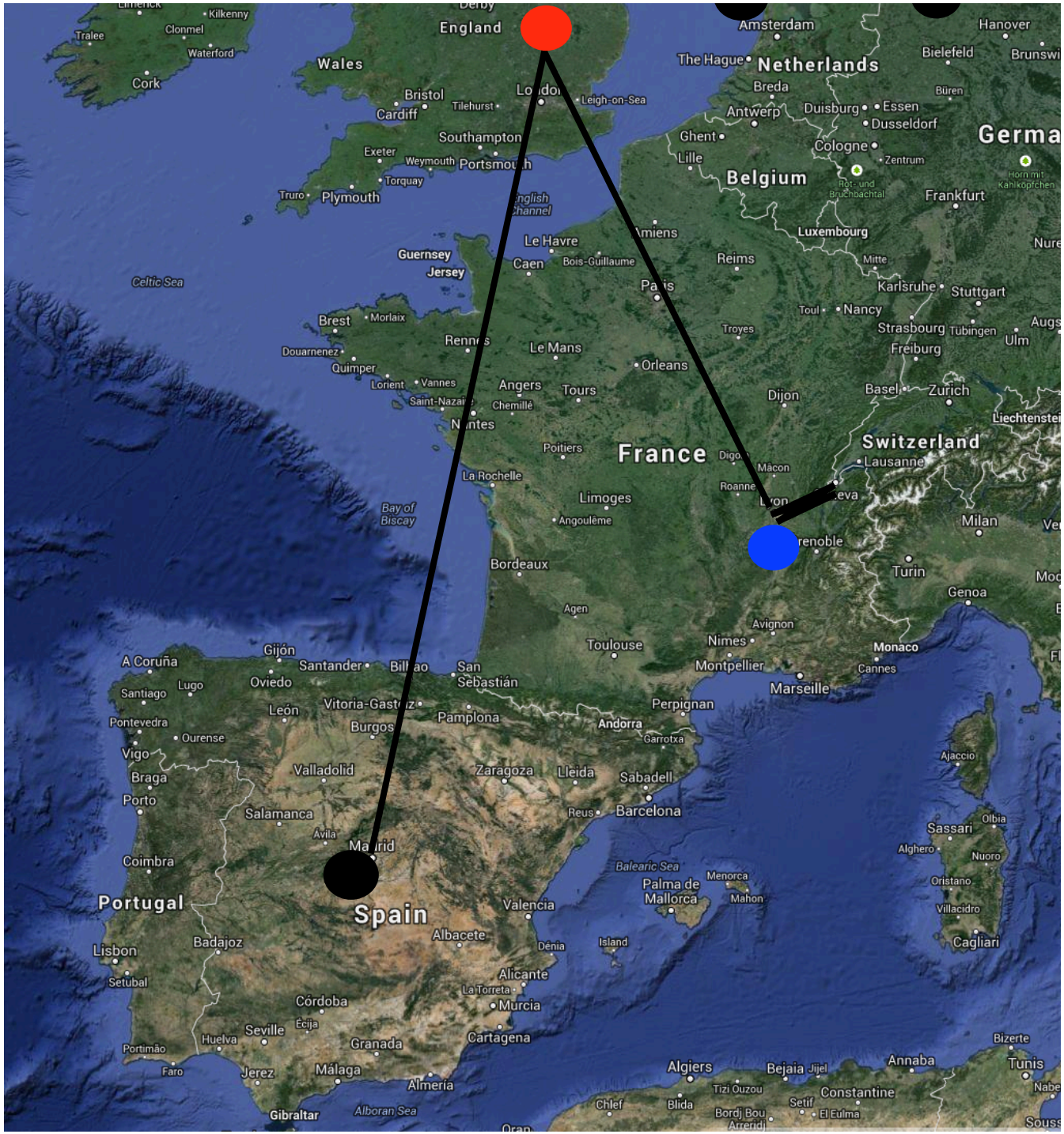
A two body problem with happy ending

Marivi Fernandez-Serra
Associate Professor
Stony Brook University

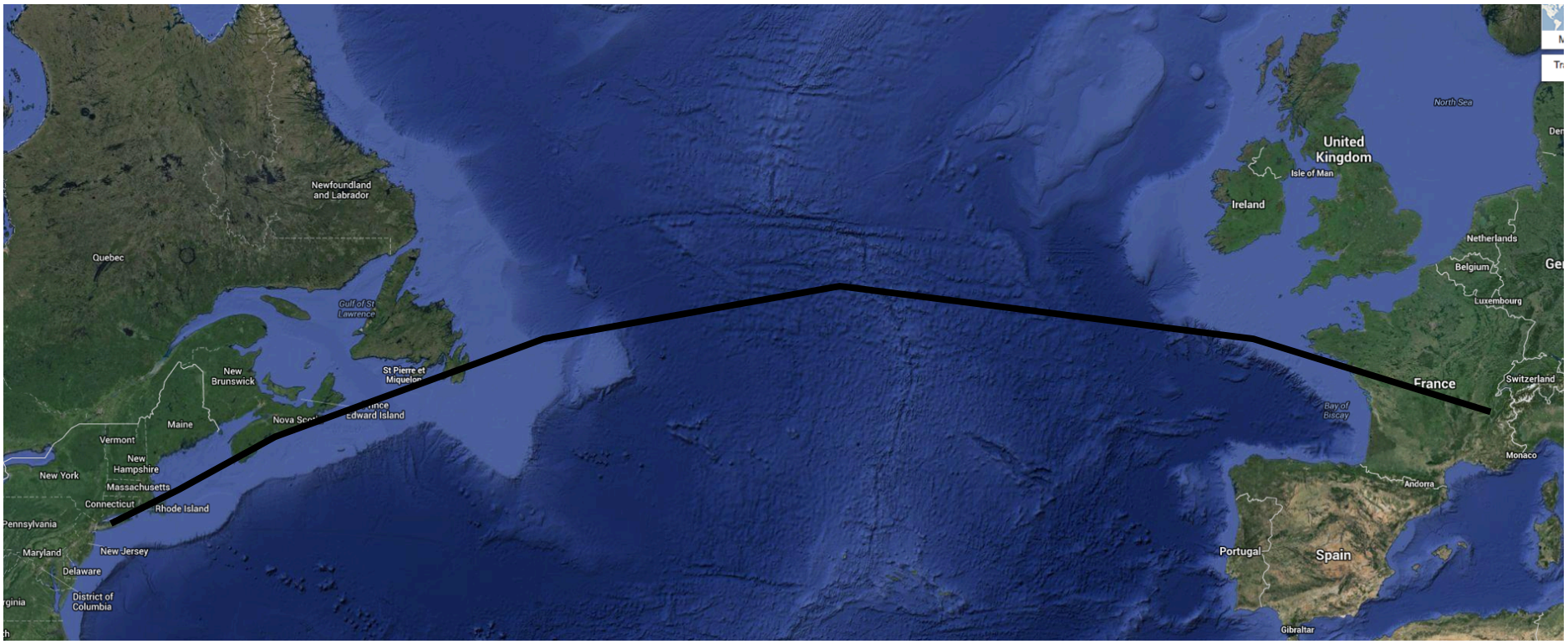
Undegrad:
1999
Universidad
Autonoma
Madrid
(33% female)

2005 PhD
University of
Cambridge
(UK)
(30% female)

Post-Doc
Ecole Normale
Superieur
Lyon
(40% female)



2008
Assistant Professor
Stony Brook



Job Add (2006): 1 Cond Mat. theory (computation) + 1 Cond Mat. Exp

We tried, and we got lucky!

- When it comes to decisions in two body problems:
  - Timing matters, and often decides; I had two post-doc options, one was 100% sure near my partner, the other was only 99% sure in the US (pending on grant renewal). I decided not to wait and take the 100% option. Of course both options were equally good for me, so there was no bad decision.
  - Both people should compromise. If you feel you are compromising too much, speak out. But the most important thing is knowing that your partner values your career as much as he/she values his/hers.

- As a student and post-doc: Enjoy and travel as much as you can. Once you are a faculty you will travel more, but you will have less freedom to enjoy it.
- But make sure you work hard to ensure that you advisor approves and supports your travel!

Joanna Kiryluk, assistant professor
Department of Physics and Astronomy
Stony Brook University

Contact: Joanna.Kiryluk@stonybrook.edu

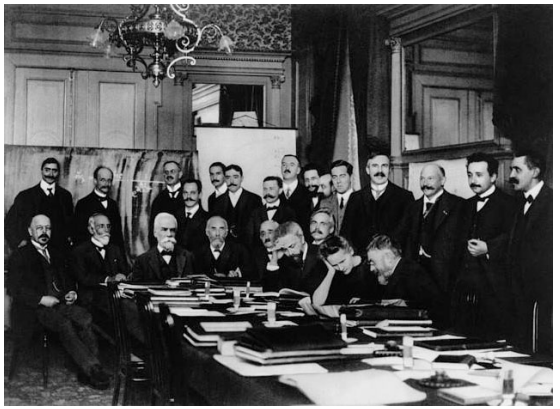
Education and Positions:
1996-2000 PhD student, exp. physics, elementary particles, University of Warsaw, Poland
2000-2004 postdoctoral researcher, University of California Los Angeles, USA
2004-2006 senior postdoctoral researcher, Massachusetts Institute of Technology, USA
2006-2011 project scientist, Lawrence Berkeley National Laboratory, USA
Spring 2011 visiting professor, University of Warsaw, Poland
Since the Fall 2011 assistant professor, Stony Brook University, USA

Inspiration: Maria Skłodowska-Curie

MSC (1867 – 1934) - a Polish born and naturalized-French physicist and chemist.

- 1903 - Nobel Prize in Physics with Pierre Curie, her husband, and Henry Becquerel
- 1911 - Nobel Prize in Chemistry

- First woman to win a Nobel Prize.
- One of four multiple Nobel-Laureates.
- Only person to win a Nobel Prize in two different sciences.



Warsaw, Poland (Europe)

Faculty of Physics
University of Warsaw

The Faculty of Physics is a large research and teaching center. It consists of The Institutes of Theoretical Physics, Experimental Physics, Geophysics, The Astronomical Observatory and The Department of Mathematical Methods in Physics.

The Faculty is regarded as one of the best in the country, recognized internationally for the high quality of research and education.

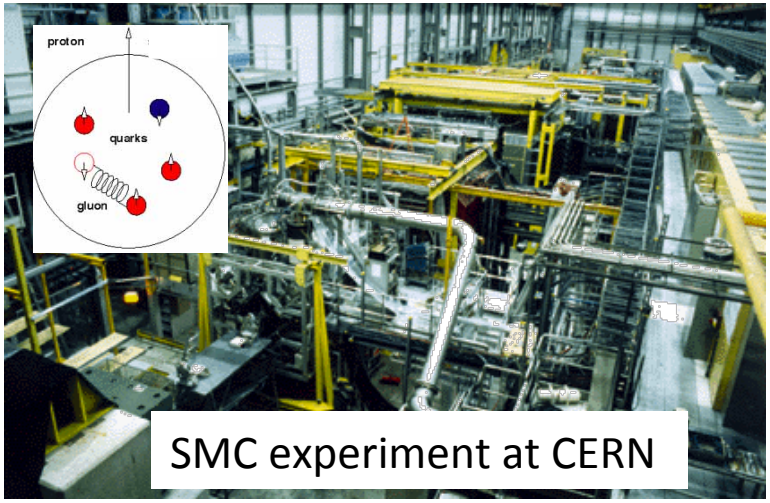
Women in Physics

DZIEWCZYNY DO ŚCISŁYCH

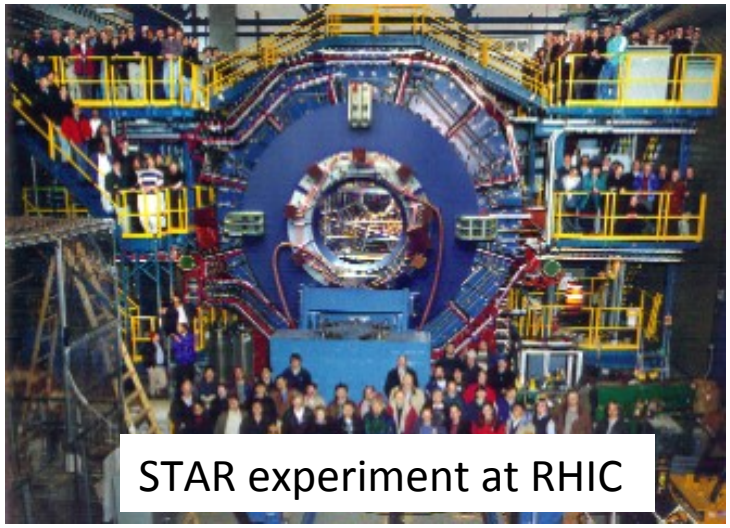
With 40% of female students and 35 women professors, the Faculty of Physics University of Warsaw is successfully aiming at achieving gender equality. To further boost the number of women in science and technology careers, we are co-organizing the action "Girls to Science/Girls as Engineers!" the main goal of which is to promote this educational path among female high-school students as interesting, attractive and very beneficial in the long run.

My (past) research project

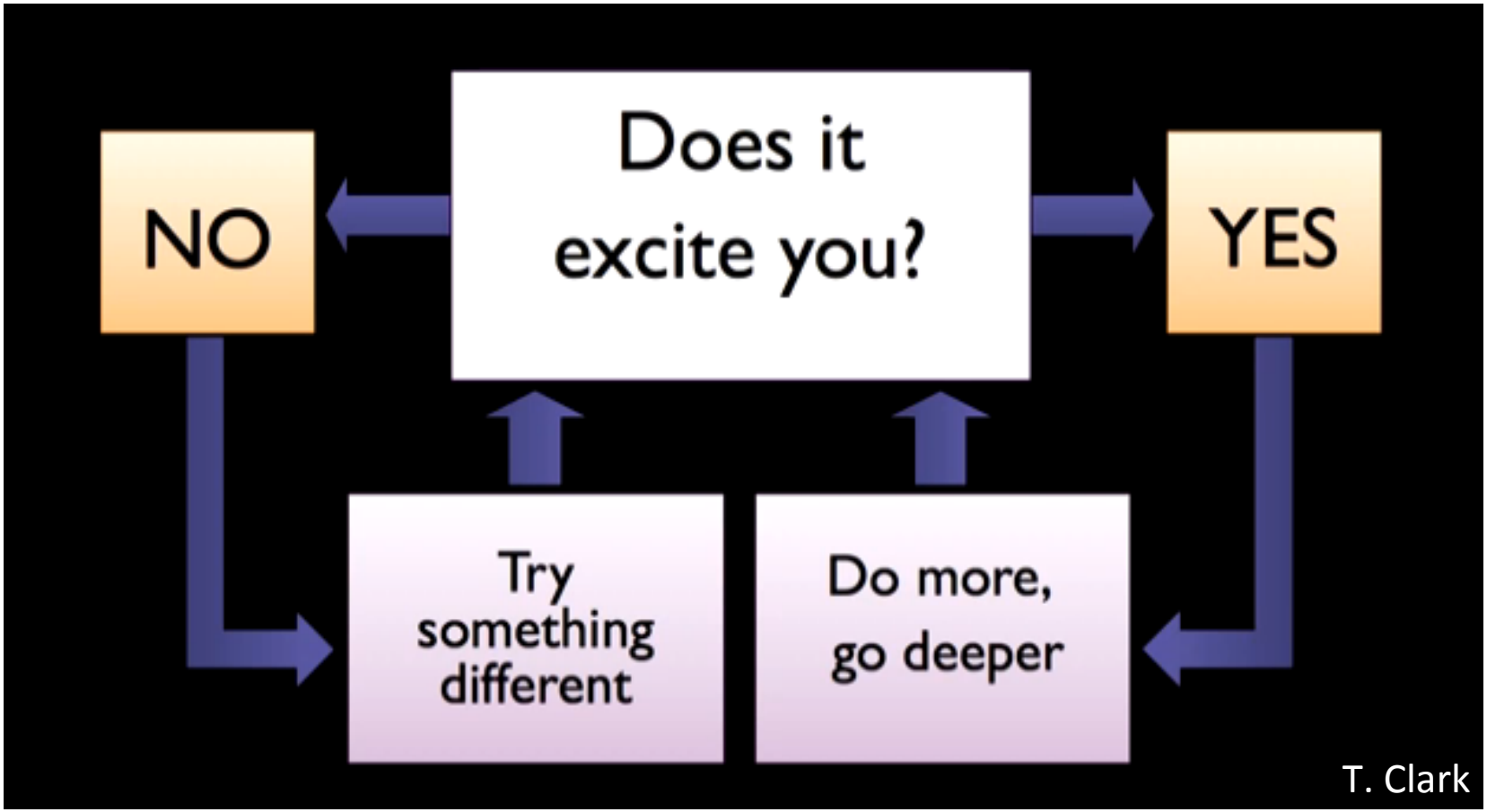
SMC: How do quarks spin? (PhD, Warsaw Univ.)



STAR: How do gluons spin? (Postdocs: UCLA, MIT)



Career “planning”

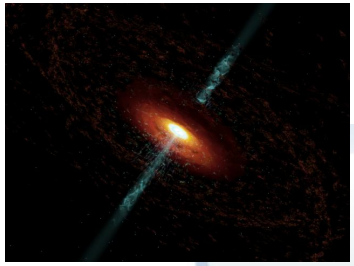


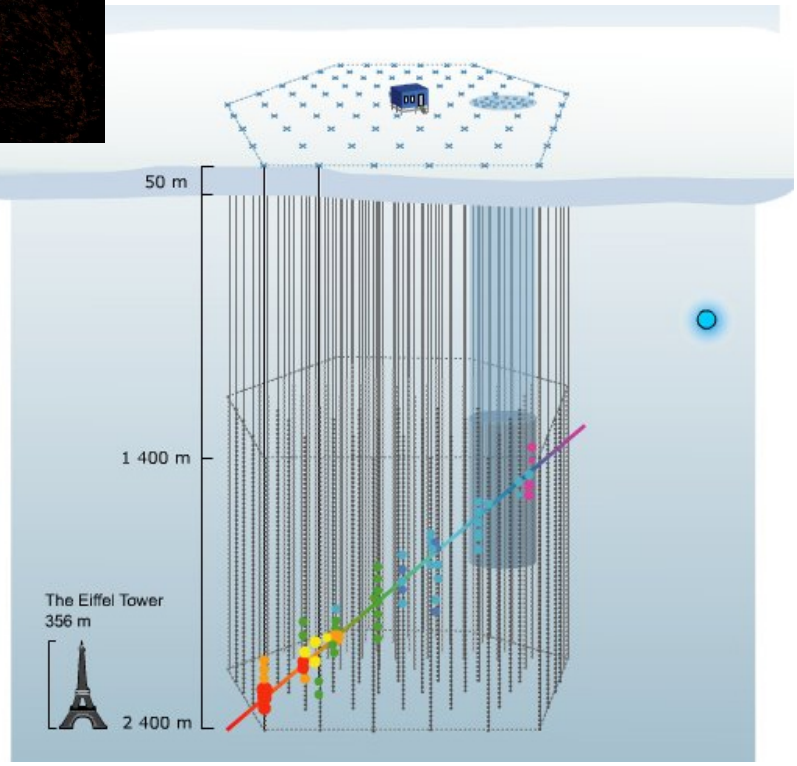
applied a few times in my life …..

My (current) research project

IceCube
SOUTH POLE NEUTRINO OBSERVATORY

A 1 km^3 telescope in the South Pole ice to search for the highest energy neutrinos from astrophysical sources (e.g. Active Galactic Nuclei, Gamma Ray Bursts) in the Universe.

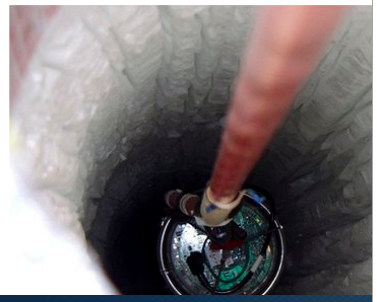




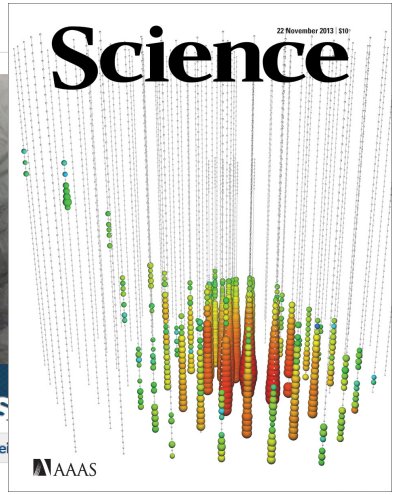
BBC News Sport Weather Capital Cultu
NEWS SCIENCE & ENVIRONMENT
Home US & Canada Latin America UK Africa Asia Europe Mid-East Business Health

Neutrinos from the cosmos hint at new era in astronomy

By Jason Palmer
Science and technology reporter, BBC News



NBC NEWS
TOPICS Space Environment Innovation



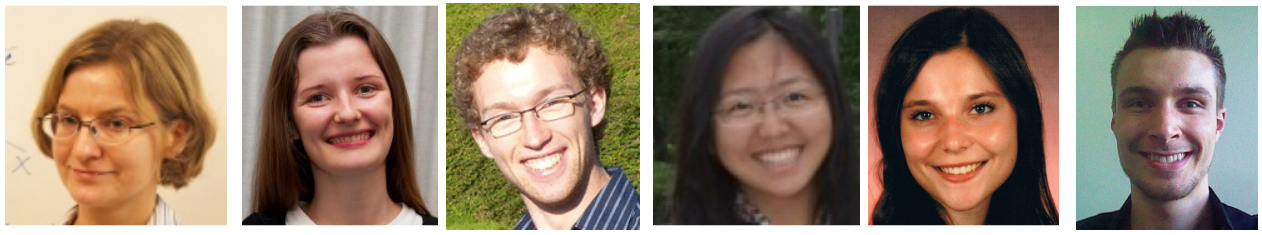
COSMIC LOG
Alien neutrinos reveal new frontier in astronomy at Antarctica's IceCube

Alien neutrinos reveal new frontier in astronomy at Antarctica's IceCube

A work day in my life revolves around

Stony Brook University

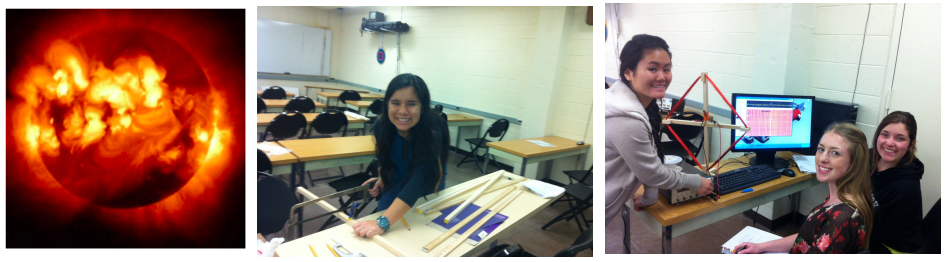
- Research: IceCube



Principal investigator: Joanna Kiryluk
Postdoc: Mariola Lesiak-Bzdak,
Grad students : Hans Niederhausen, Yiqian Xu
Fulbright fellow: Anna Steuer
Undergrad student: Christopher Urban

- Education: undergraduate and graduate physics courses
  2013/2014 Modern Physics, Nuclear Physics

- Outreach: Introduction to Research (WISE course)
  2013: "Hands-on science with radio waves"



- Service: committees, journal article reviews, grant reviews, …

Work and Travel – See the World

Advice for you

- Follow your heart & do what you love
- Believe in yourself
- Don’t compare yourself with others
- Focus on getting better, rather than being good
- Be a realistic optimist

Advice for you

- Follow your heart & do what you love
- Believe in yourself
- Don’t compare yourself with others
- Focus on getting better, rather than being good
- Be a realistic optimist
- Make some time just to have fun

California, 2012

Part II Questions and Answers