You will learn about the concepts and ideas of...

- Particle Physics
- Computing
- Accelerators
- Statistics

...from leading experts who actively work in these fields!

Topics: Accelerator

Accelerators and Beam Dynamics

Foteini Asvesta

Magnet Superconductivity

Susana Izquierdo Bermudez

Future High Energy Collider Projects

Roderik Bruce

Topics: Accelerator

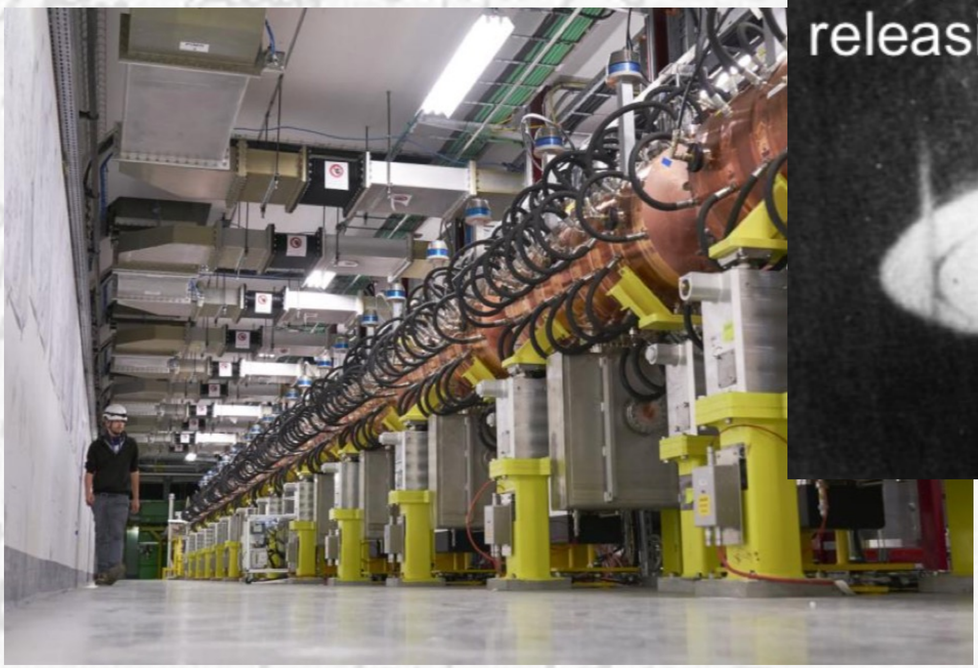
Particle Accelerators and Beam Dynamics

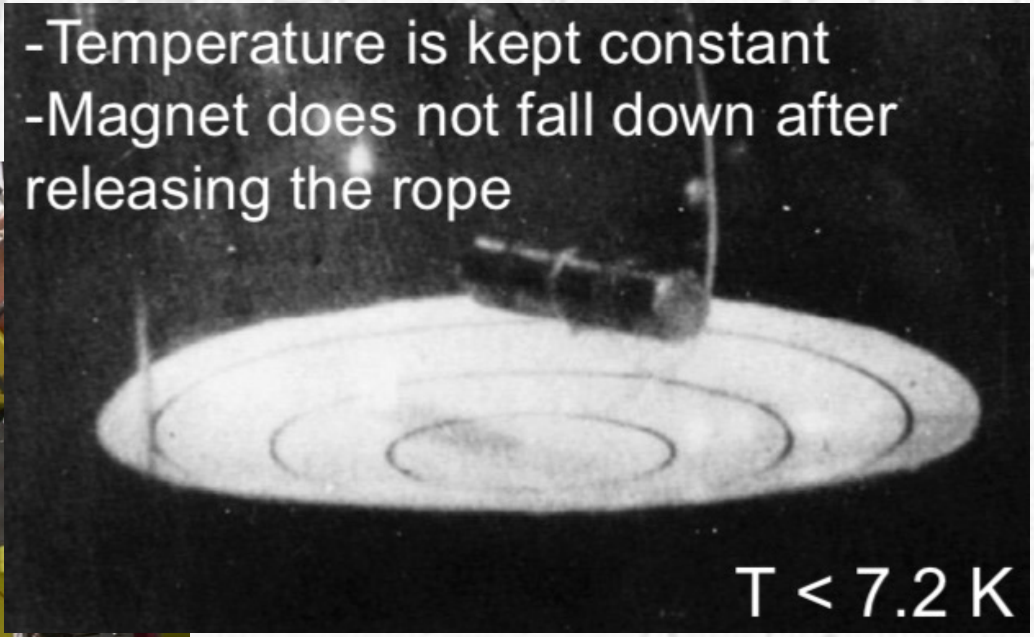
ology Challenges

Collider Projects

Topics: Accelerator

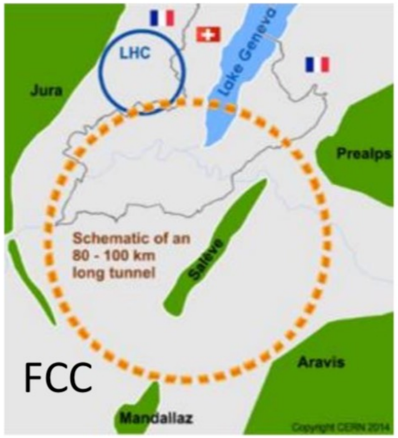
Particle Accelerators and Beam Dynamics

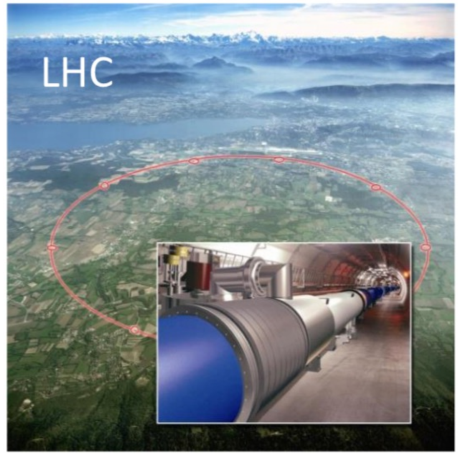


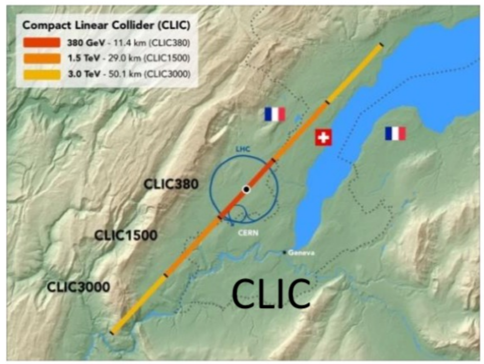


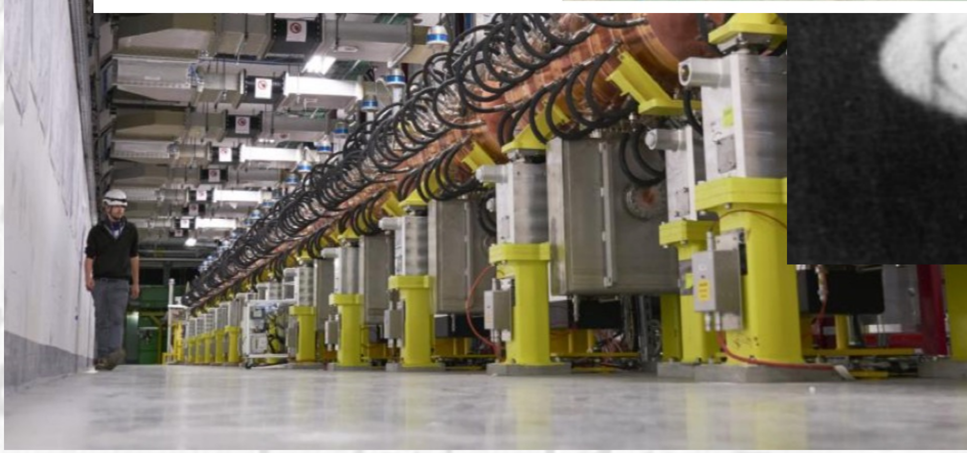
...elerator

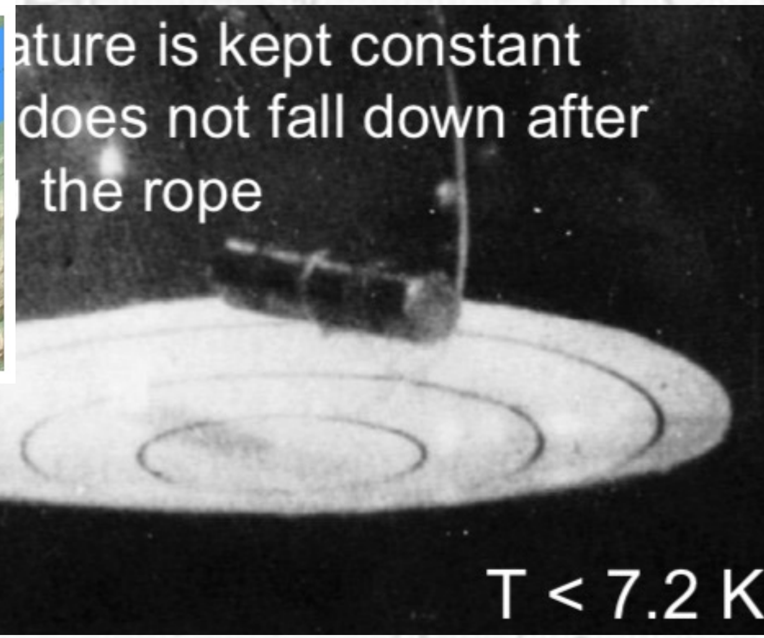
E... ...d Beam Dynamics











Topics: Detectors

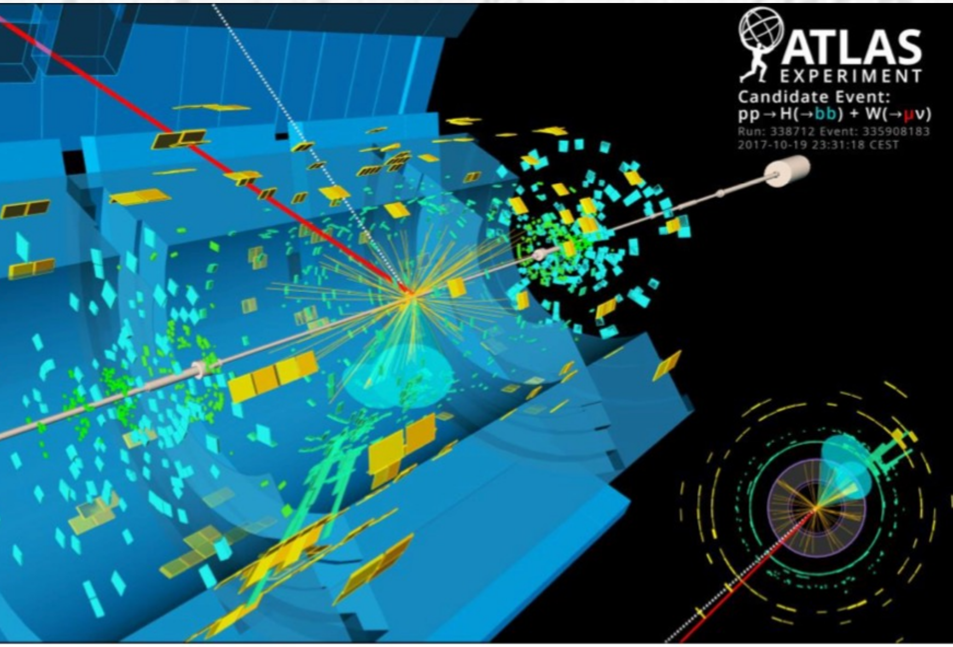
Detectors

Werner Riegler

Electronics, DAQ and Triggers

Tommaso Colombo

Topics: Detectors



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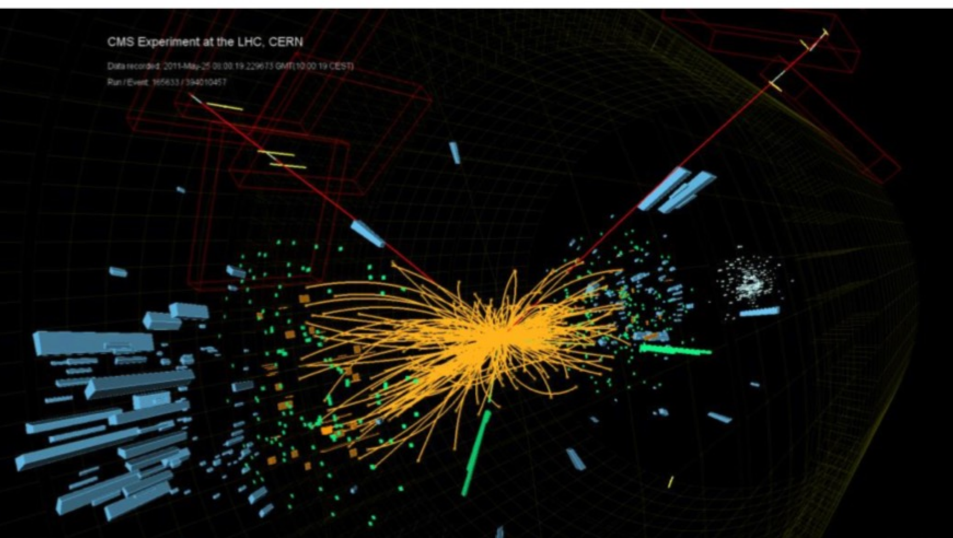
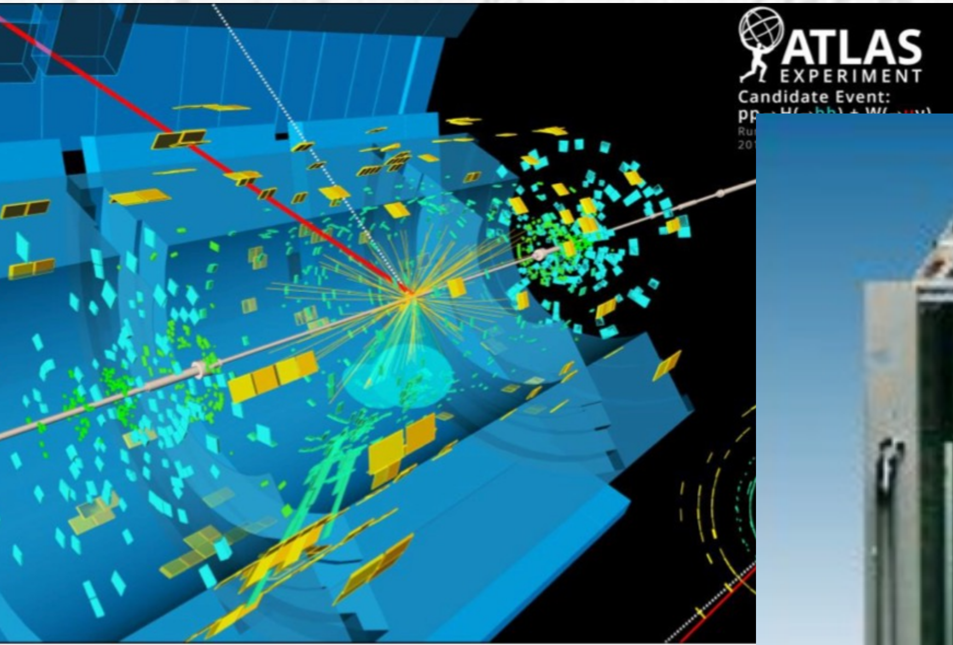
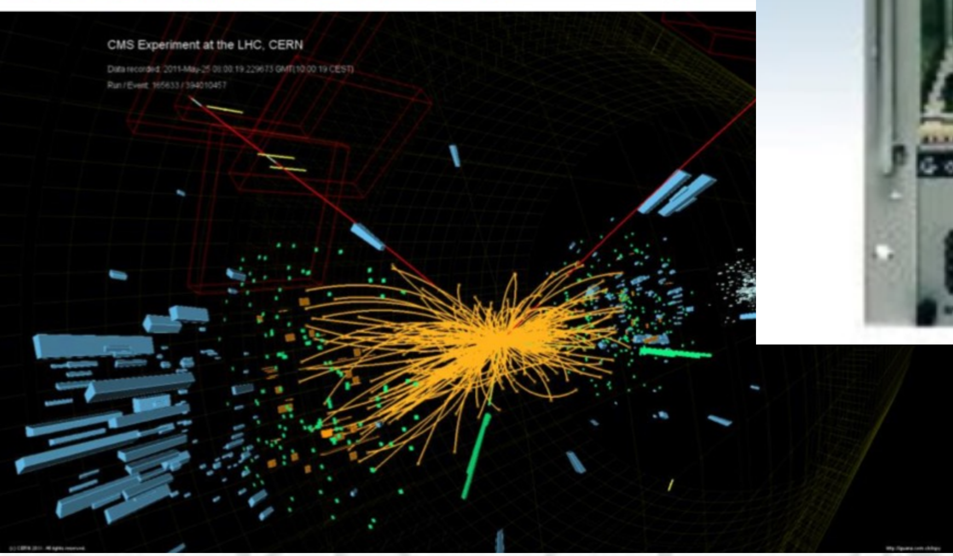


Q and Triggers

Topics: Detectors





Topics: Experiment

From Raw Data to Physics Results

Paul Laycock

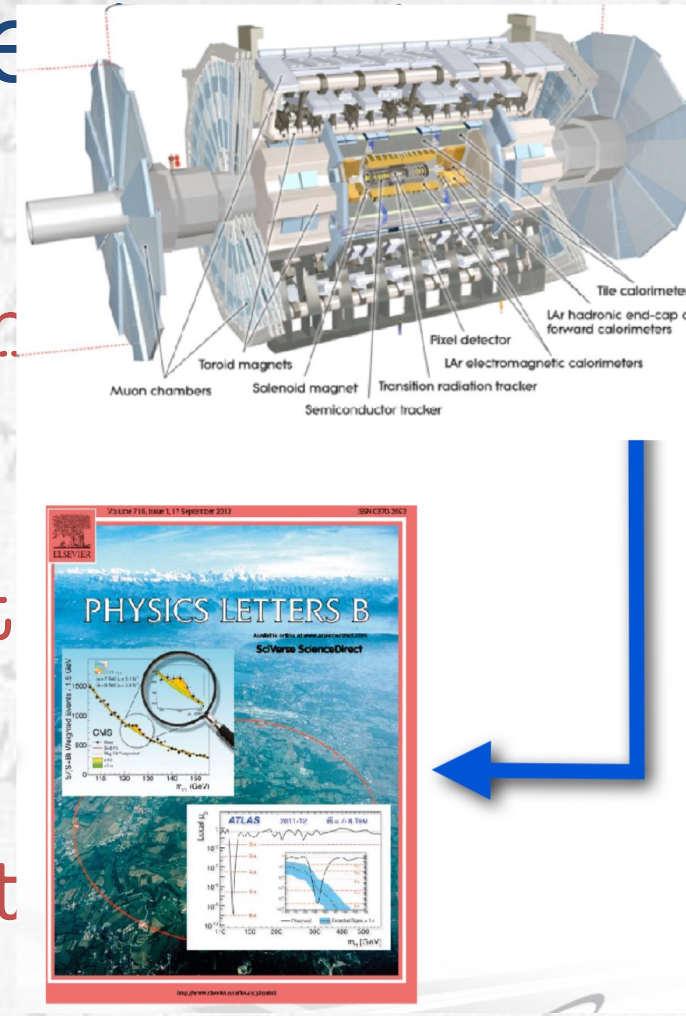
Experimental Physics at Hadron Colliders

Markus Klute

Experimental Physics at Lepton Colliders

Frank Simon

Topics: Expe

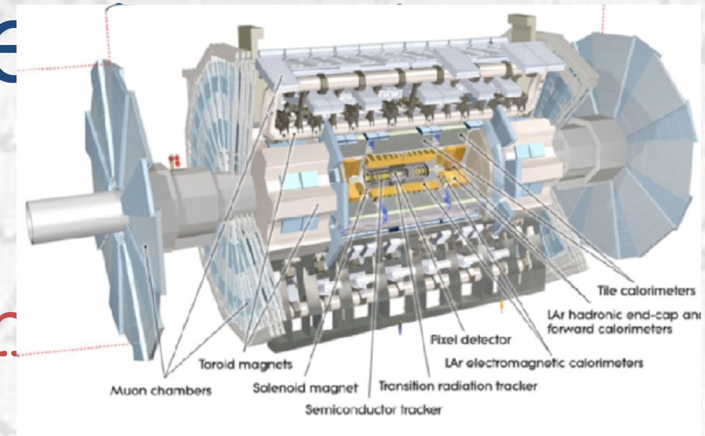


From Raw Data to Ph

Experimental Physics at

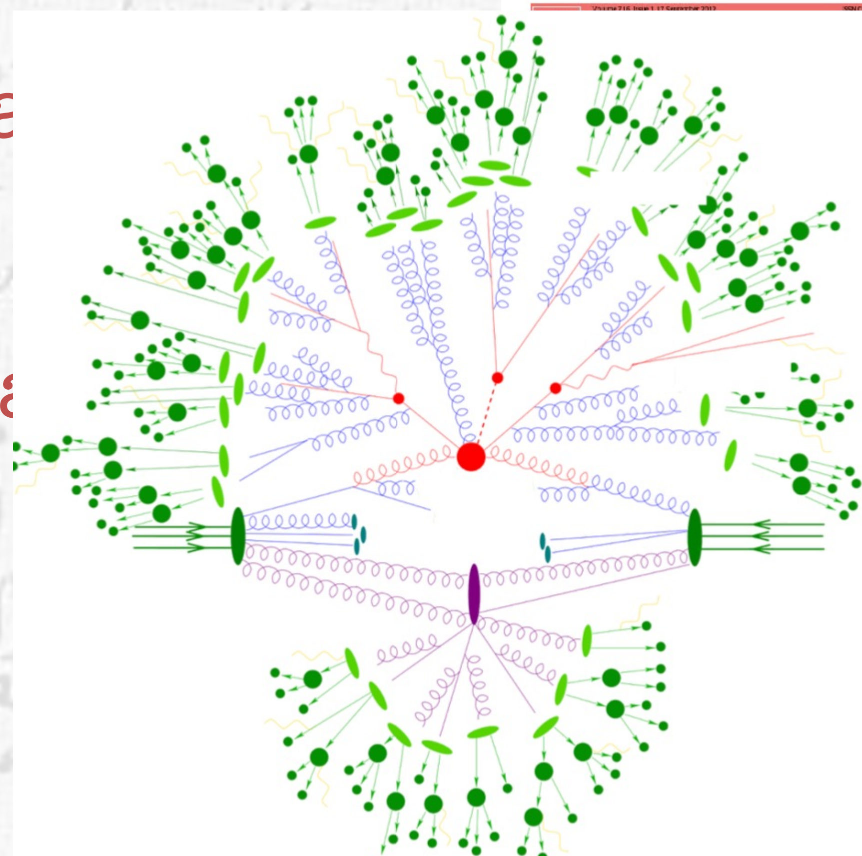
Experimental Physics at

Topics: Expe



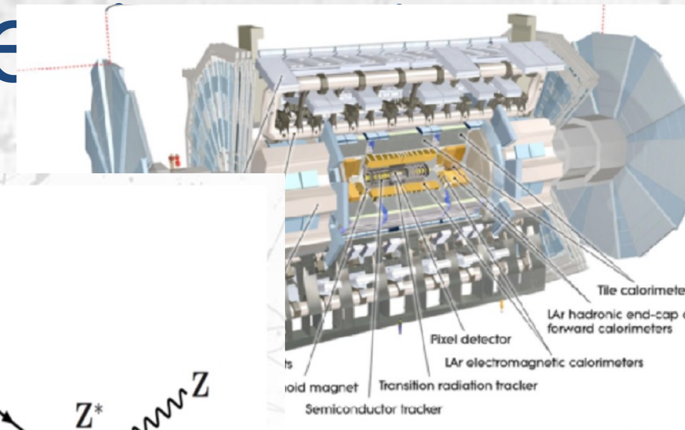
From Raw Data to Ph

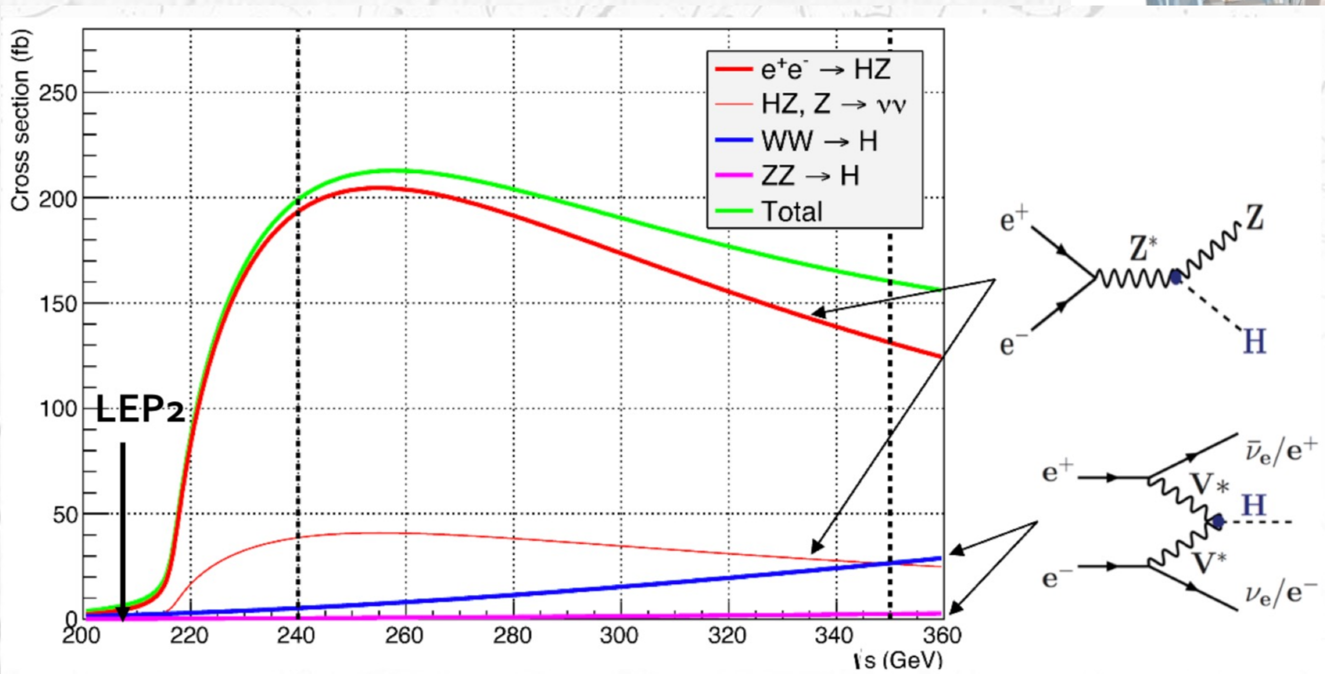
Experimenta   s

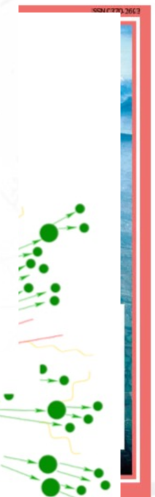


Experimenta   s

Topics: Expe







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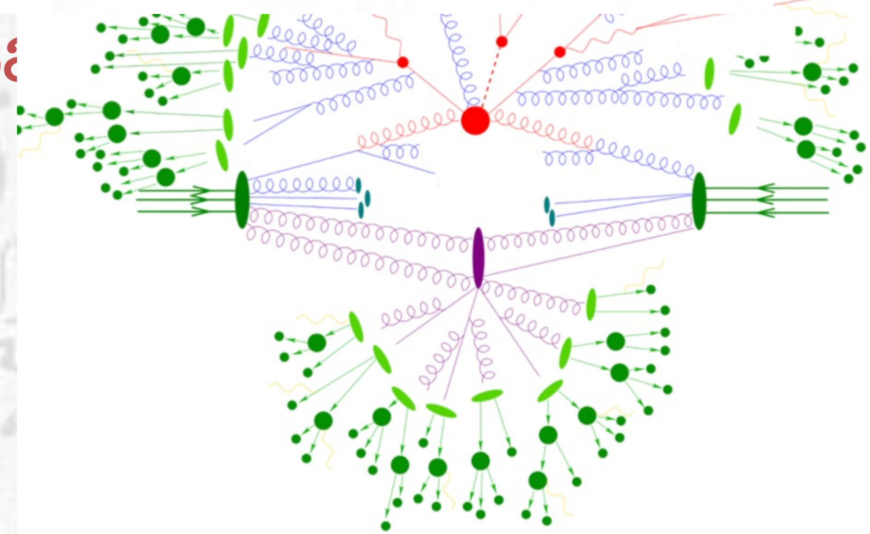


Topics: Experiment

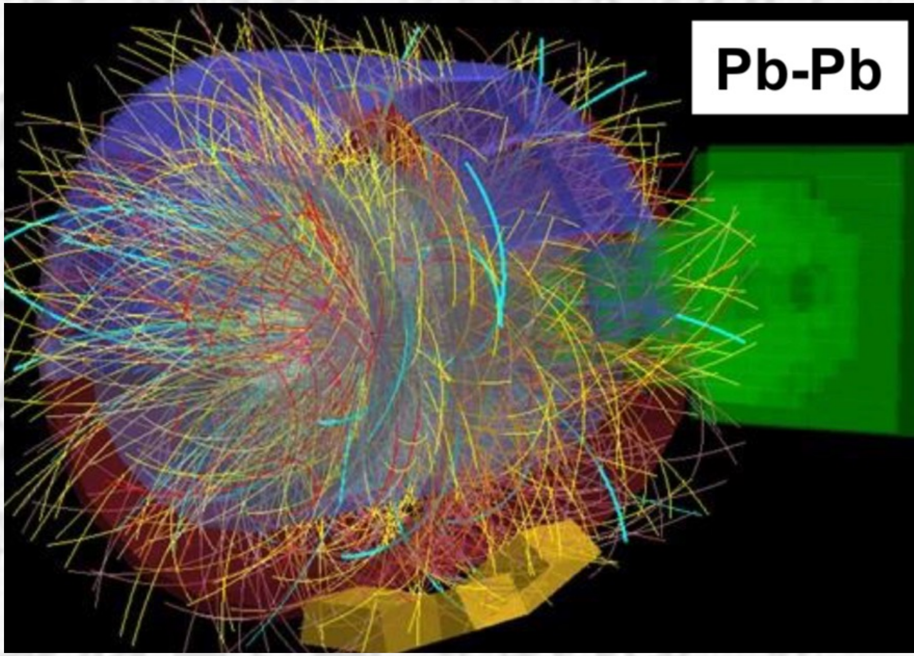
Heavy Ions
Francesca Bellini

Nuclear Physics at CERN
Magdalena Kowalska

Flavour Physics
Yasmine Sara Amhis

Antimatter in the Lab
Barbara Maria Latacz

Topics: Experiment



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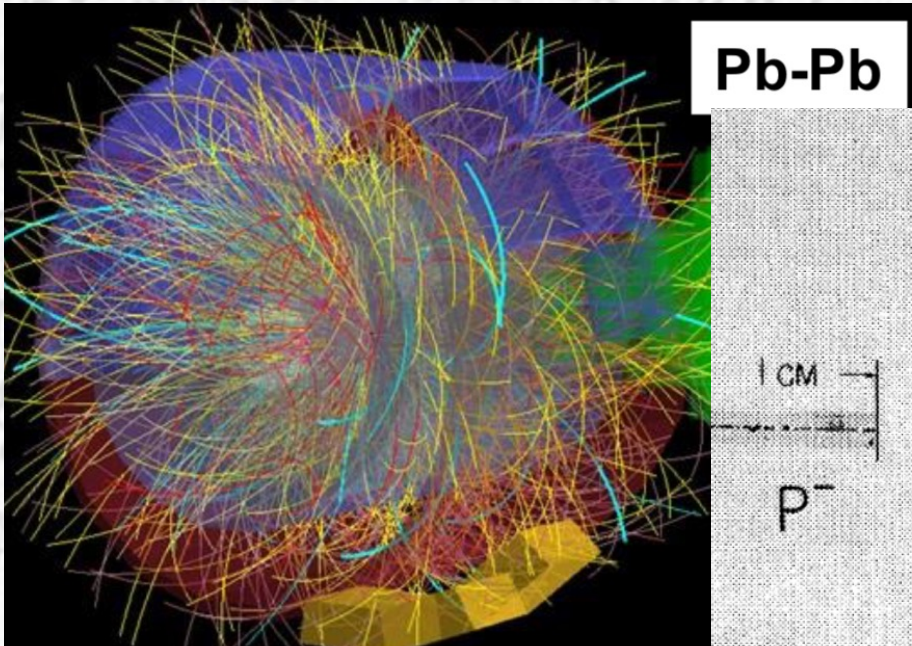
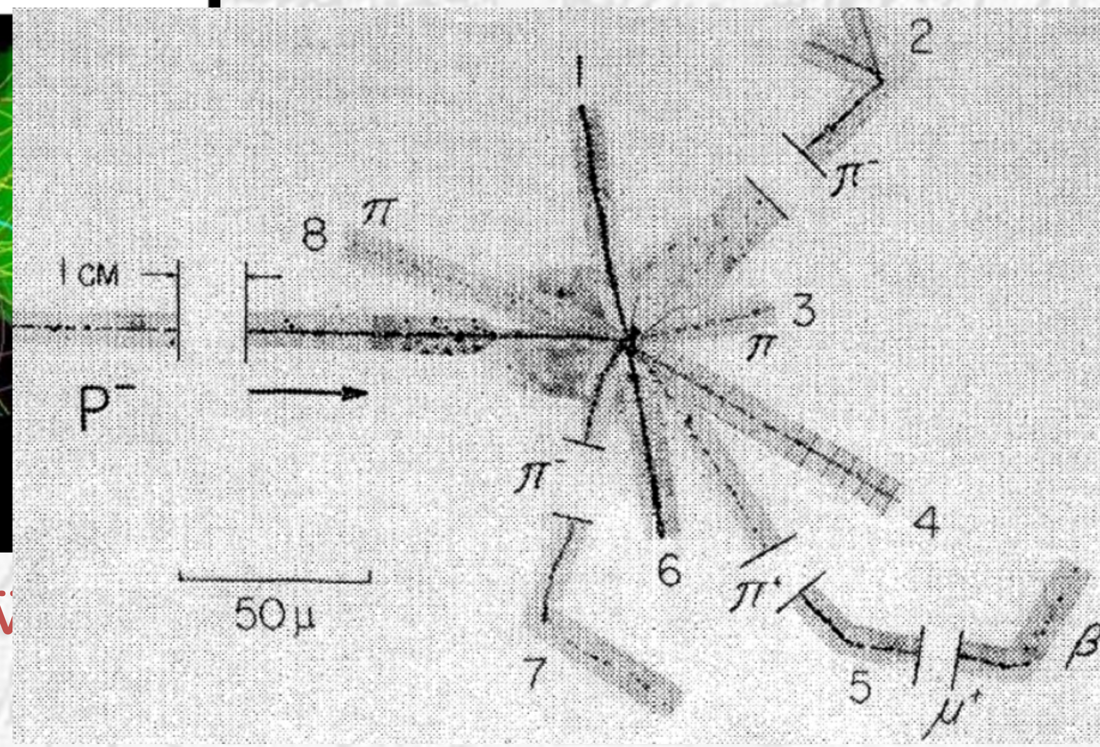
Flavour Physics

Antimatter in the Lab

Topics: Experiment





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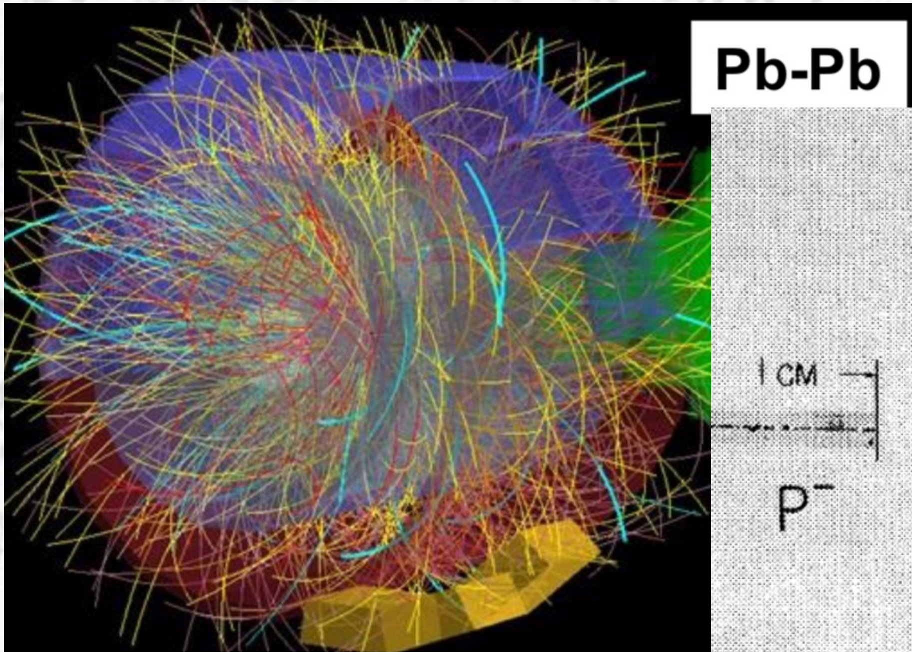
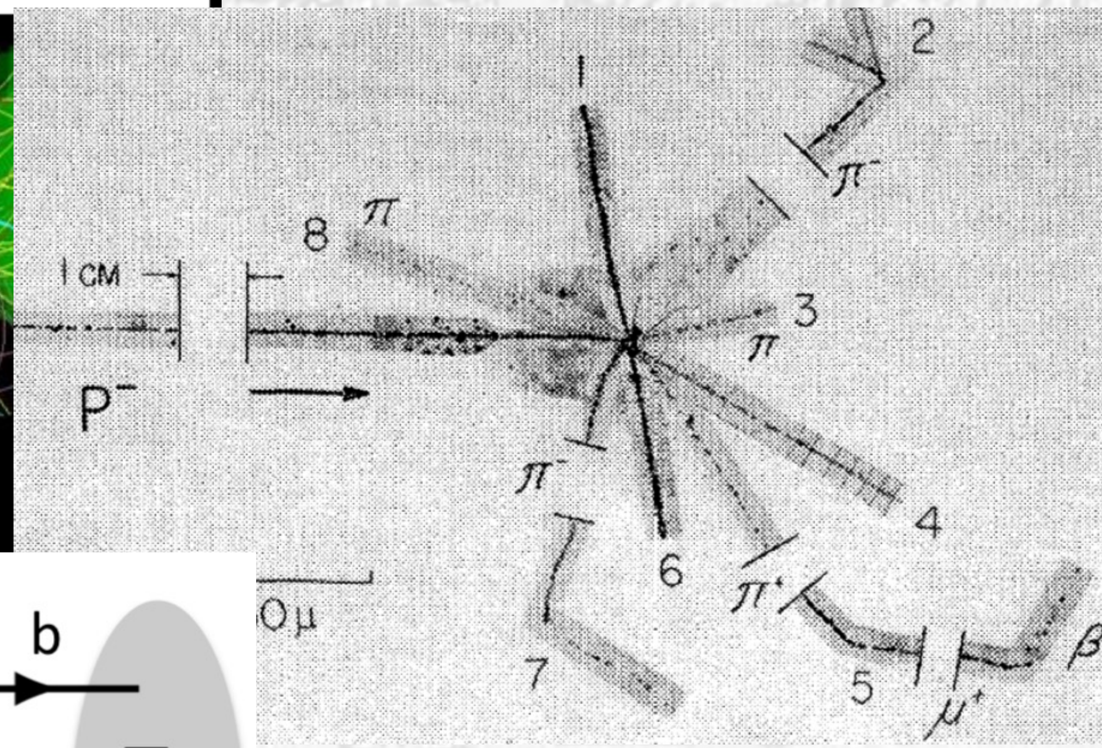
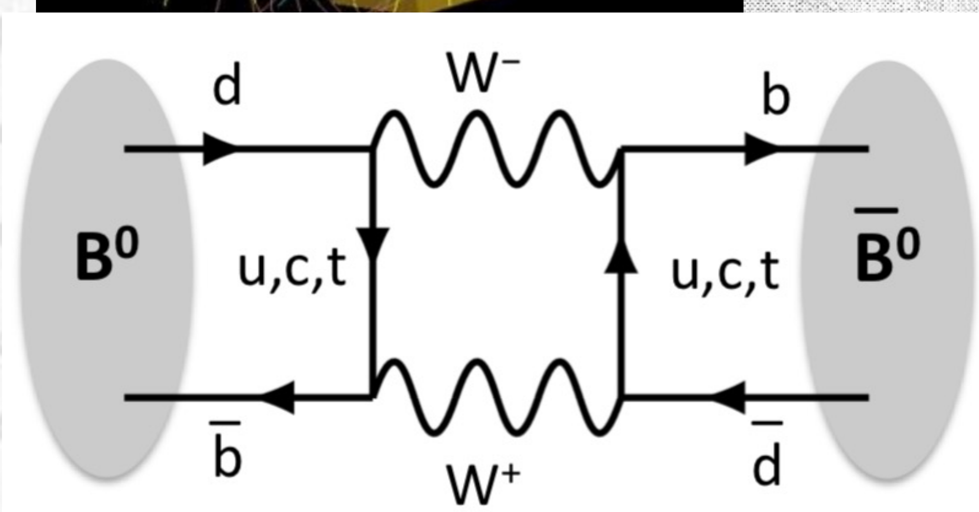
Antimatter in the Lab

Topics: Experiment

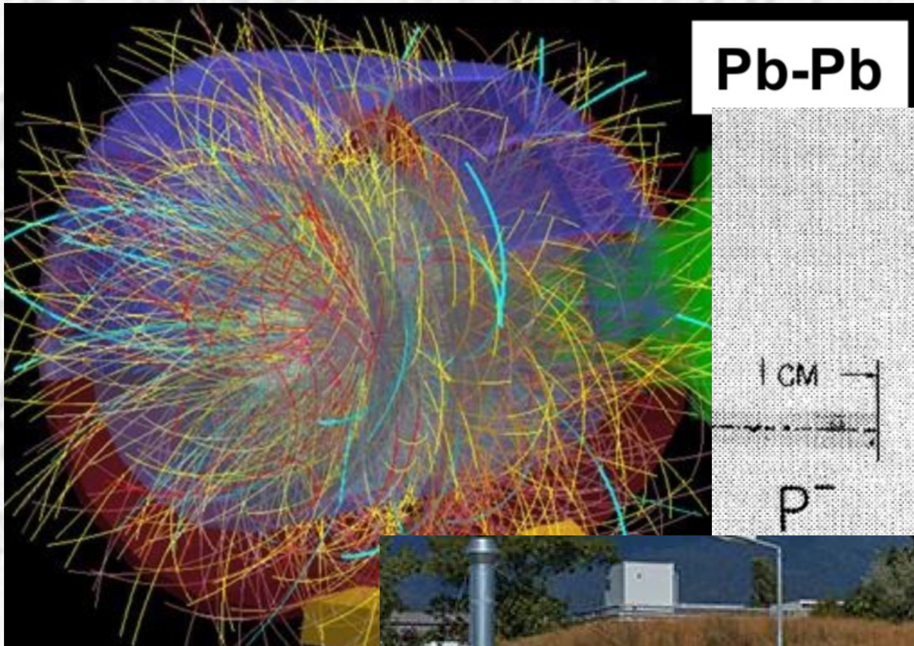


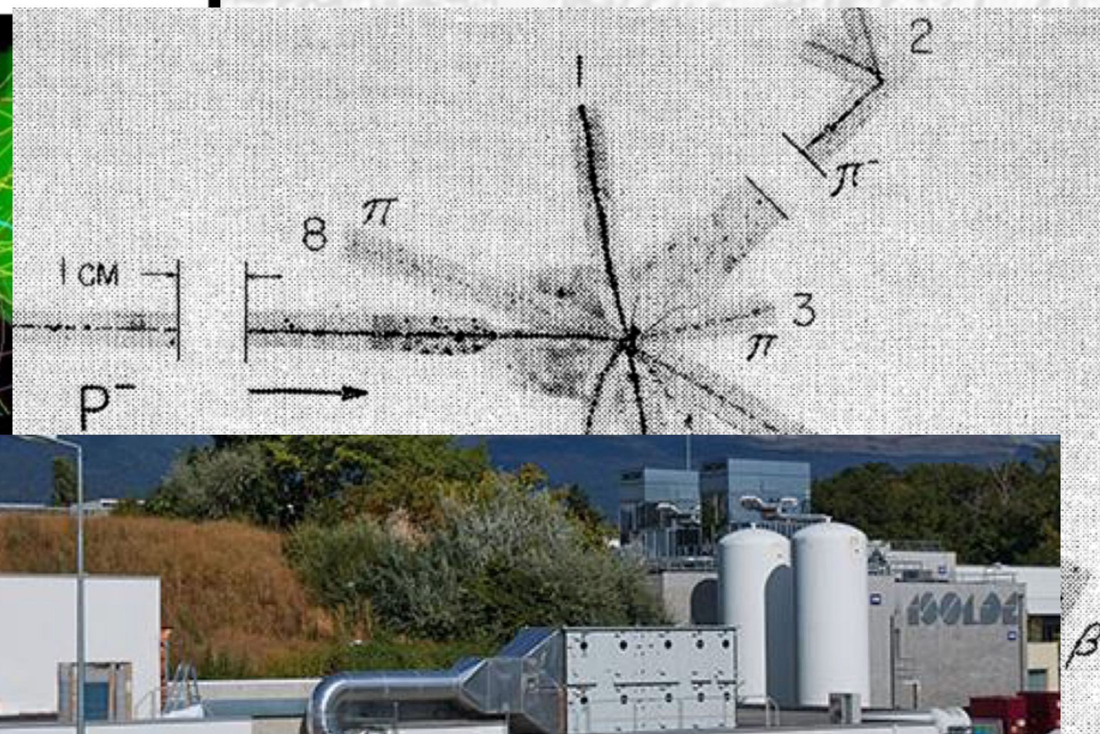


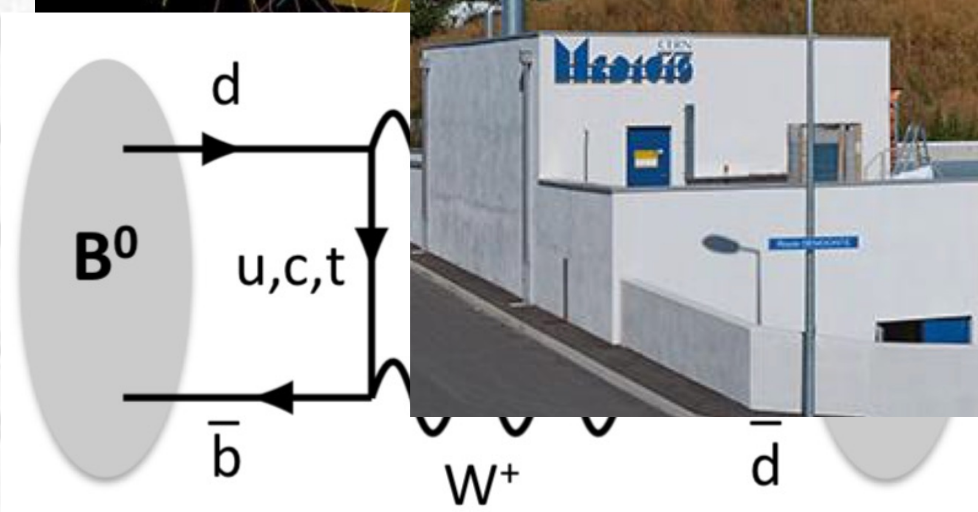


n the Lab

Topics: Experiment







Topics: Theory

Particle World

David Tong

Theoretical Concepts in Particle Physics

Tim Cohen

The Standard Model

Andreas Weiler

Beyond the Standard Model

Tevong You

Topics: Theory

Making Predictions at Hadron Colliders

Alexander Huss

Neutrino Physics

Joachim Kopp

Quantum Gravity

Kyriakos Papadodimas

pics: Theory

Particle World

Concepts in Particle Physics

Beyond the Standard Model

Making Predictions at Hadron Colliders

What is String Theory?

pics: Theory

Particle World

$$3 \neq 2$$

Concepts in Particle Physics

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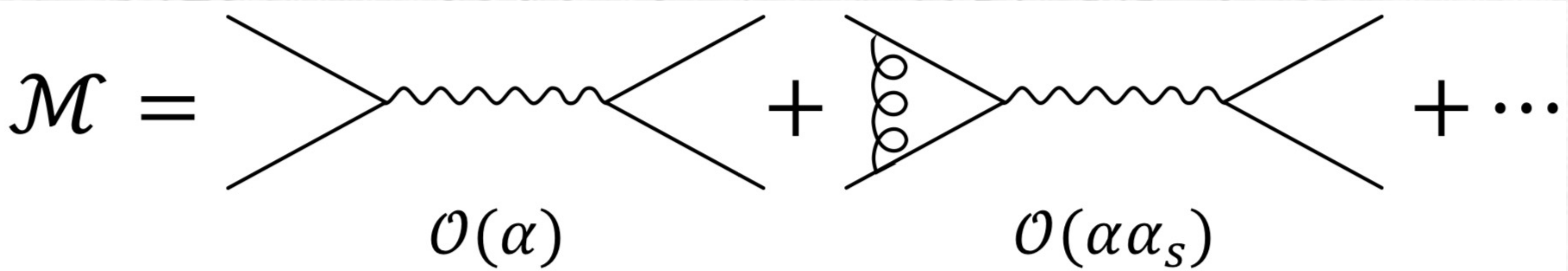
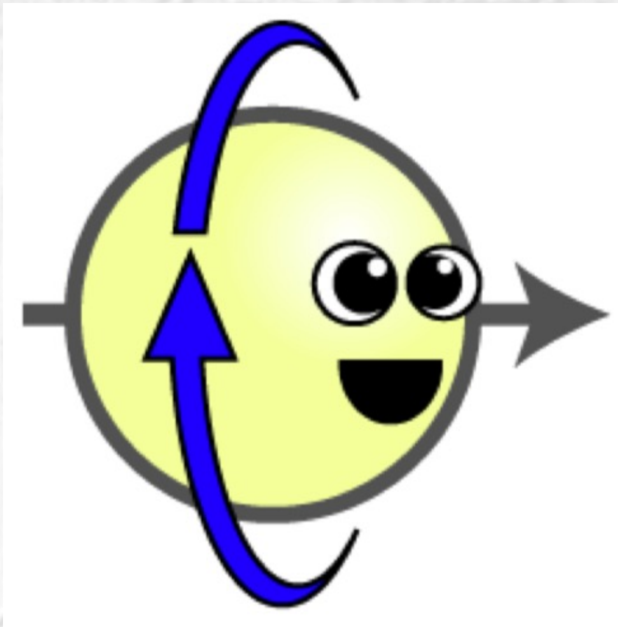




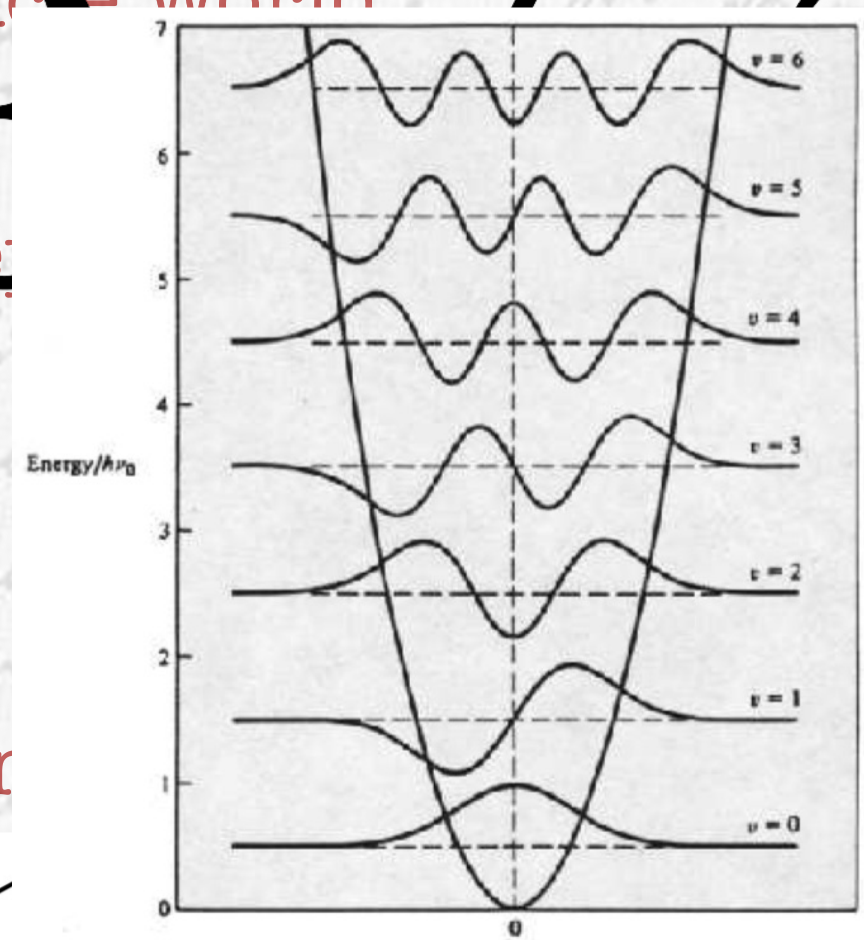
pics: Theory

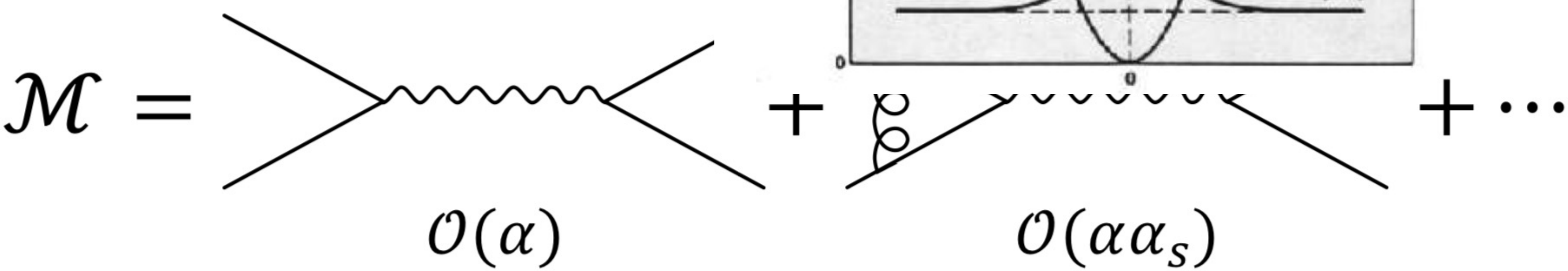
Particle World

Concep

Beyond the

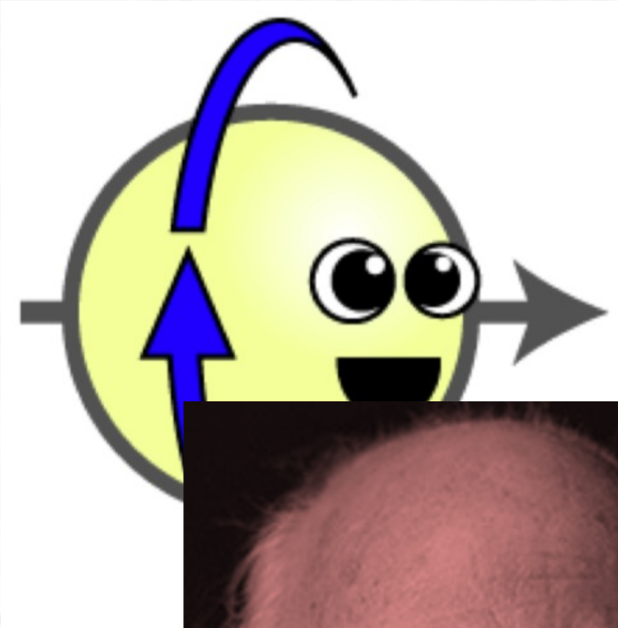
Making Predictions

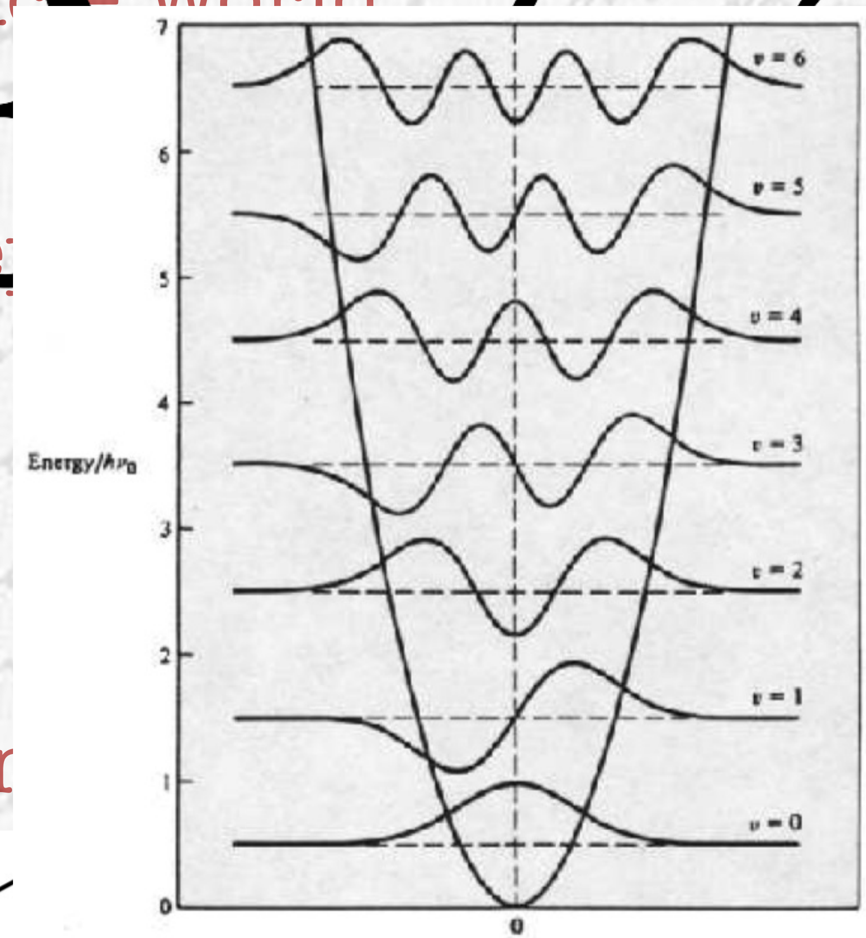




pics: Theory

Particle World





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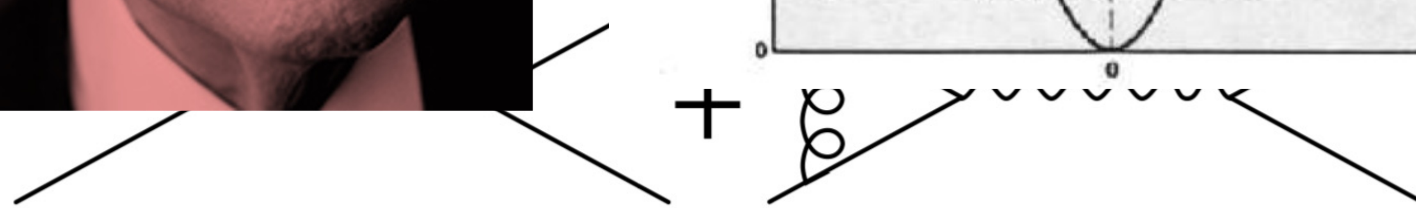


$\mathcal{O}(\alpha)$ $\quad$ $\mathcal{O}(\alpha\alpha_s)$

Topics: Astroparticle

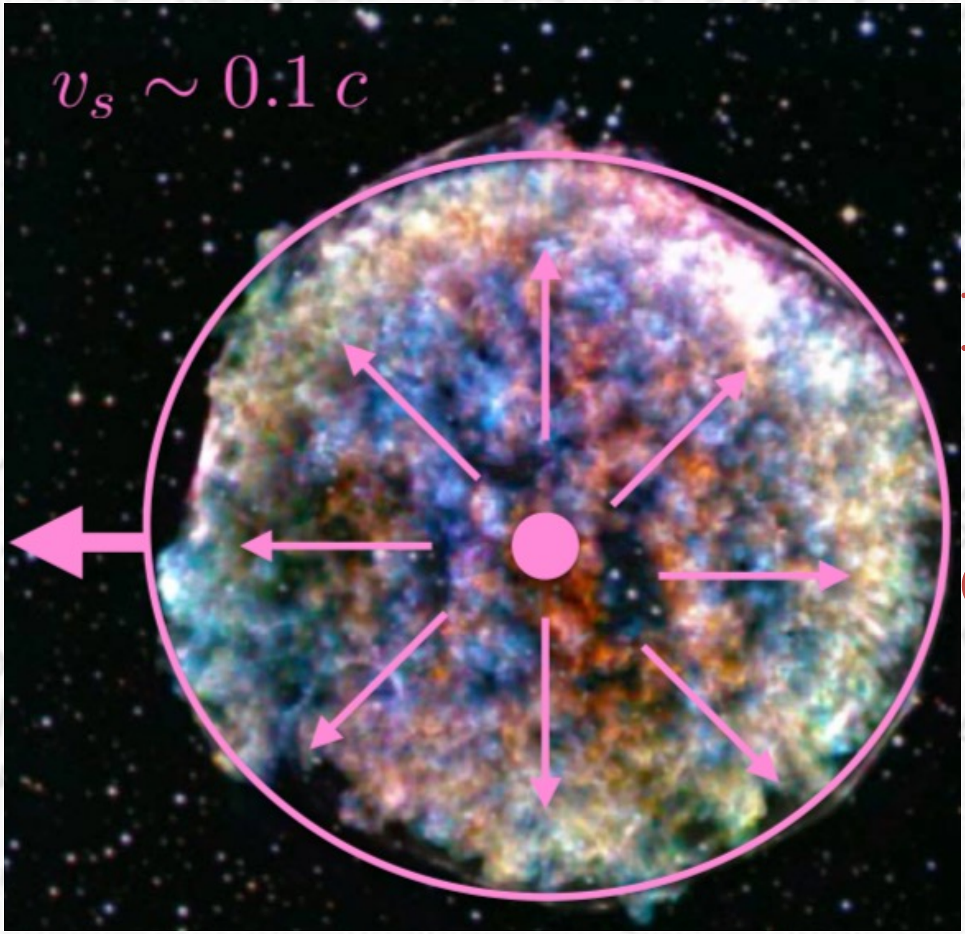
Astroparticle Physics

Bradley Kavanagh

Introduction to Cosmology

Daniel Baumann

Topics: Astroparticle



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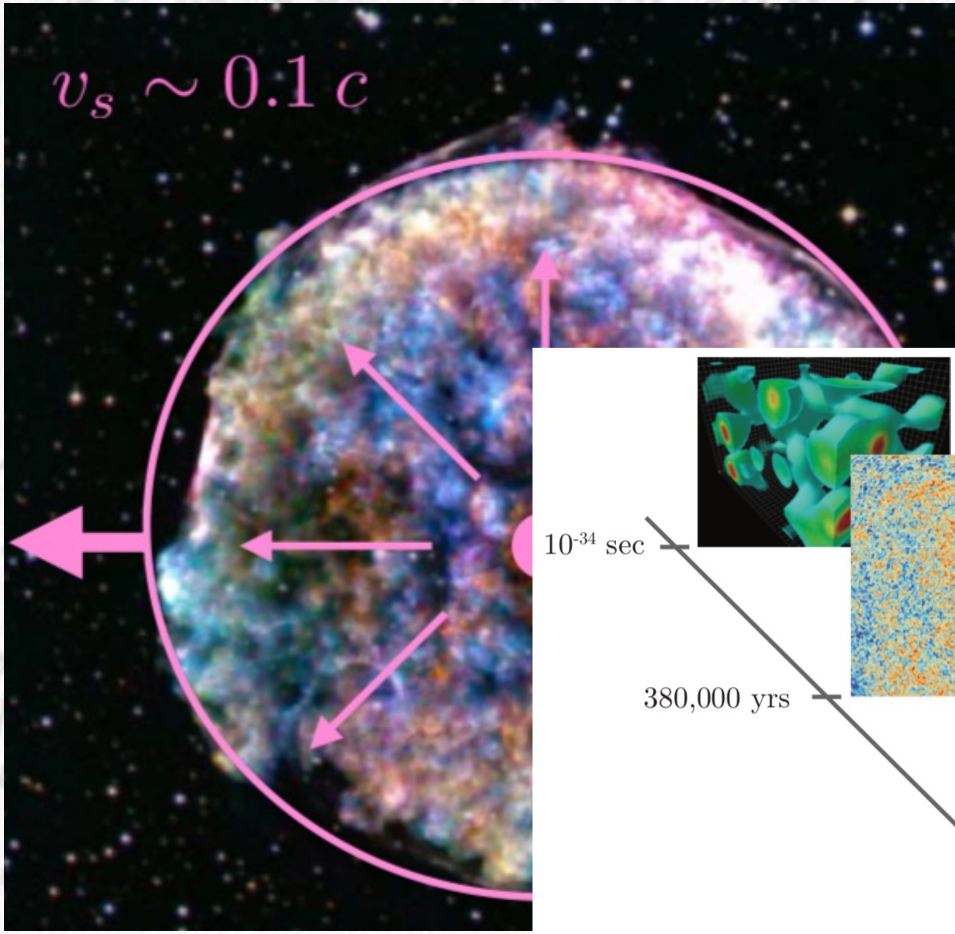
Topics: Astroparticle



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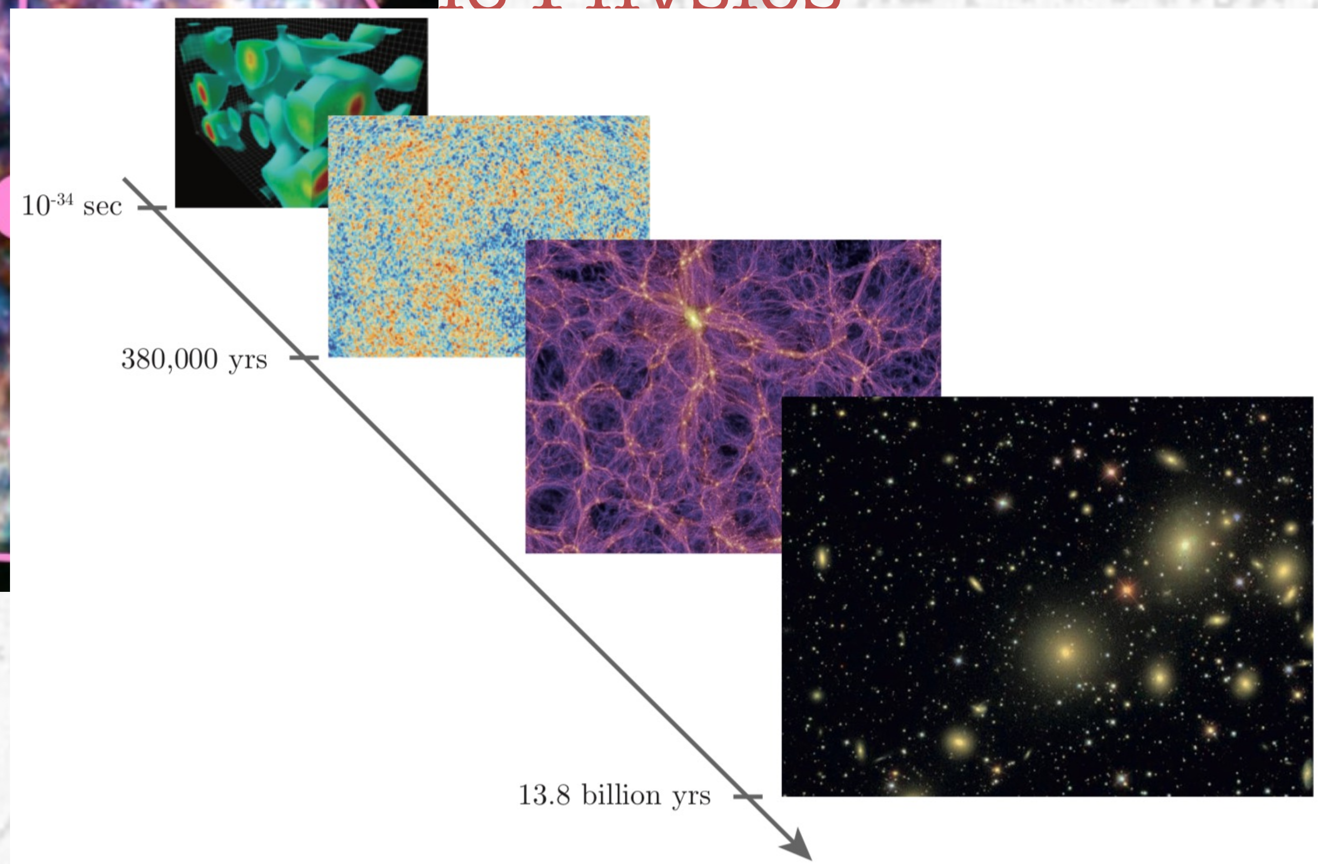


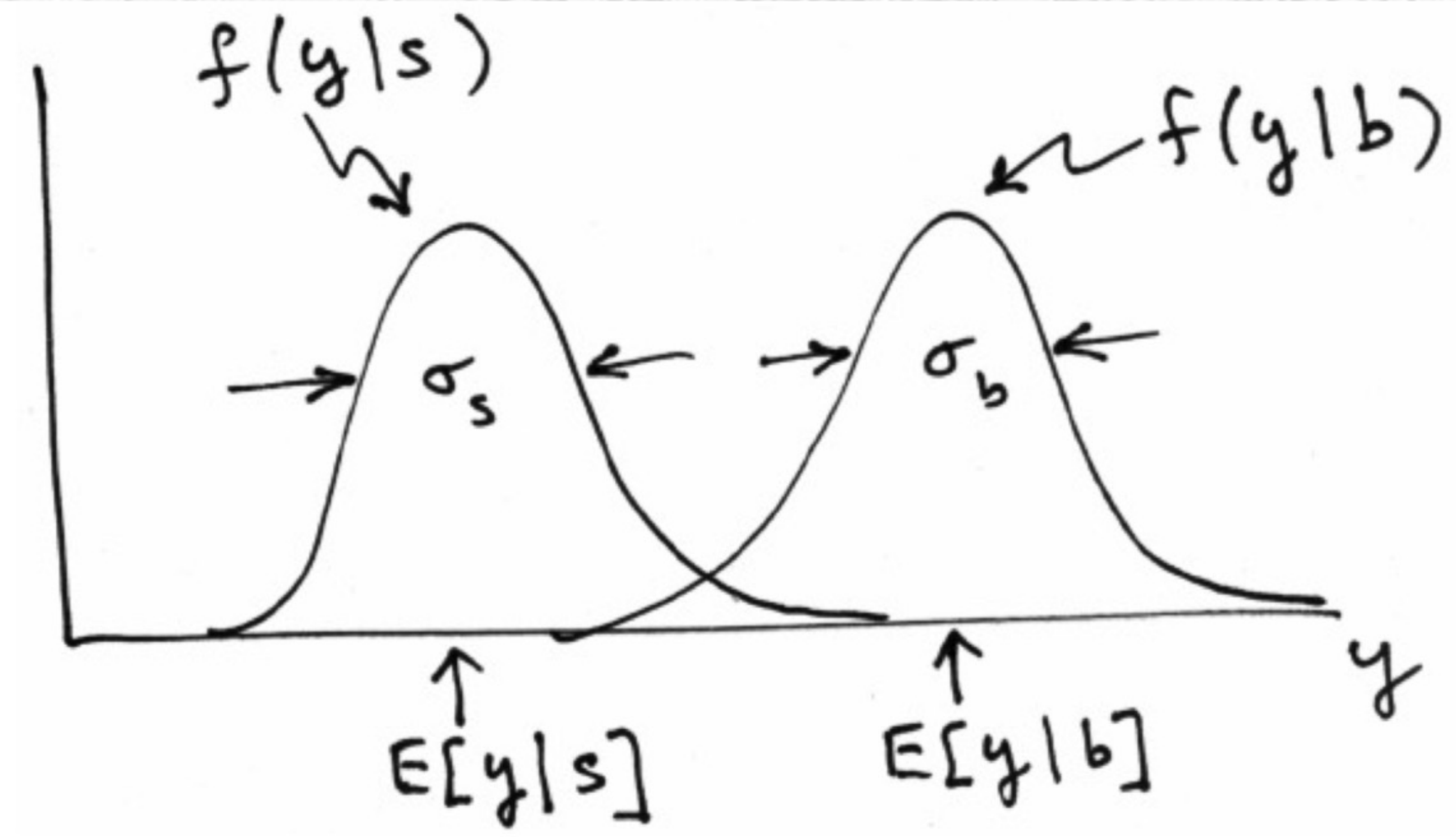
Topics: Statistics/Computing

Foundation of Statistics

Glen Cowan

OpenLab!

Topics: Statistics/Computing



Research Resources

Information Resources

INSPIRE-HEP:

INSPIRE is a trusted community hub that helps researchers to share and find accurate scholarly information in high energy physics.

- Discover literature, authors, conferences, jobs...
- inspirehep.net

PDG:

Particle Data Group: The Review of Particle Physics.

- Booklet (online/app/print): particle properties & short reviews
- Review (online/book): more detailed material
- pdg.lbl.gov

CERN LIBRARY:

Large collection of publications (books, proceedings, journals, theses etc.), in technical and non-technical fields, from introductory to advanced

- Nice space in building 52 (close to R1) open 24/7
- Search, read and borrow in paper or online:
- catalogue.library.cern

Further Questions: Micha Moskovic

Summary

CERN is where these topics and the people who work on them collide!

This is your chance take advantage of the full breadth of topics to learn about!

We hope you have an enriching time at CERN and a fantastic summer!