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

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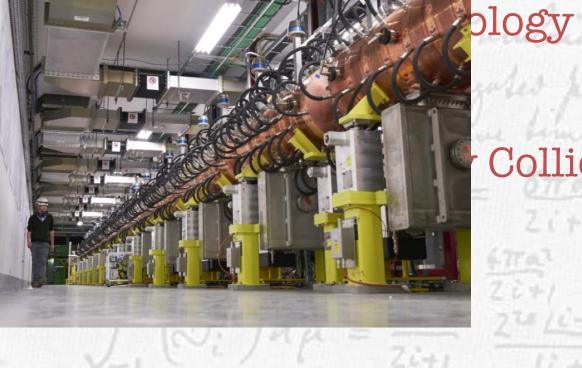
Magnet Superconductivity Susana Izquierdo Bermudez

Future High Energy Collider Projects Roderik Bruce

Topics: Accelerator

Particle Accelerators and Beam Dynamics

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supplyin the physical necessities of scientific a

Collider Projects

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Topics: Accelerator

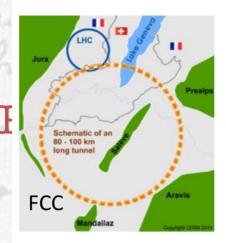
Particle Accelerators and Beam Dynamics

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-Temperature is kept constant -Magnet does not fall down after releasing the rope

T < 7.2 K

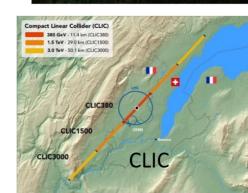




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Topics: Detectors

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Detectors Werner Riegler

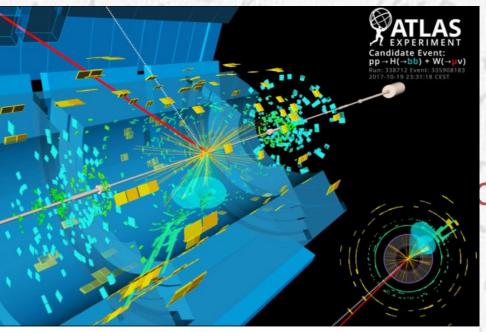
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Electronics, DAQ and Triggers Tommaso Colombo

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Topics: Detectors



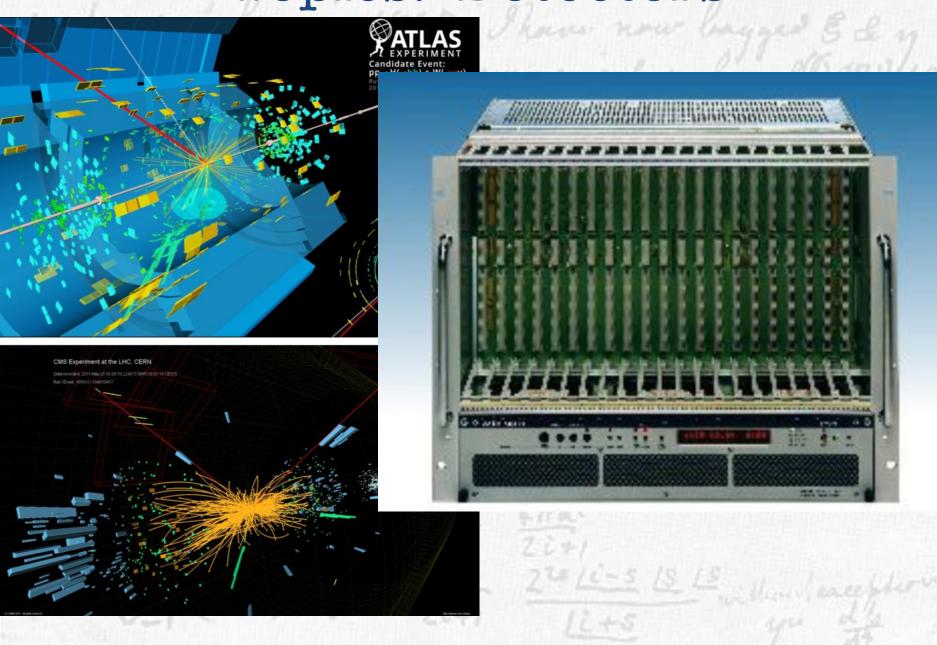
CNS Experiment at the LH-C. CERN Description of the State S

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Topics: Detectors



From Raw Data to Physics Results Paul Laycock

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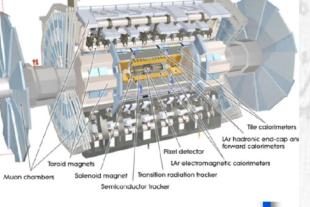
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Experimental Physics at Hadron Colliders Markus Klute

Experimental Physics at Lepton Colliders Frank Simon

Topics: Expe

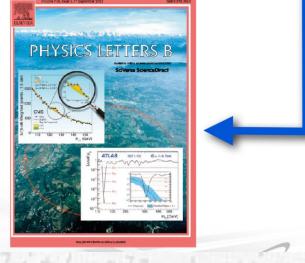
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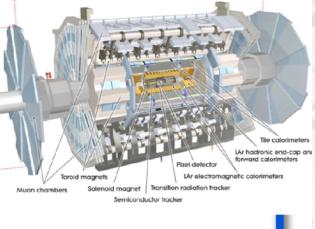
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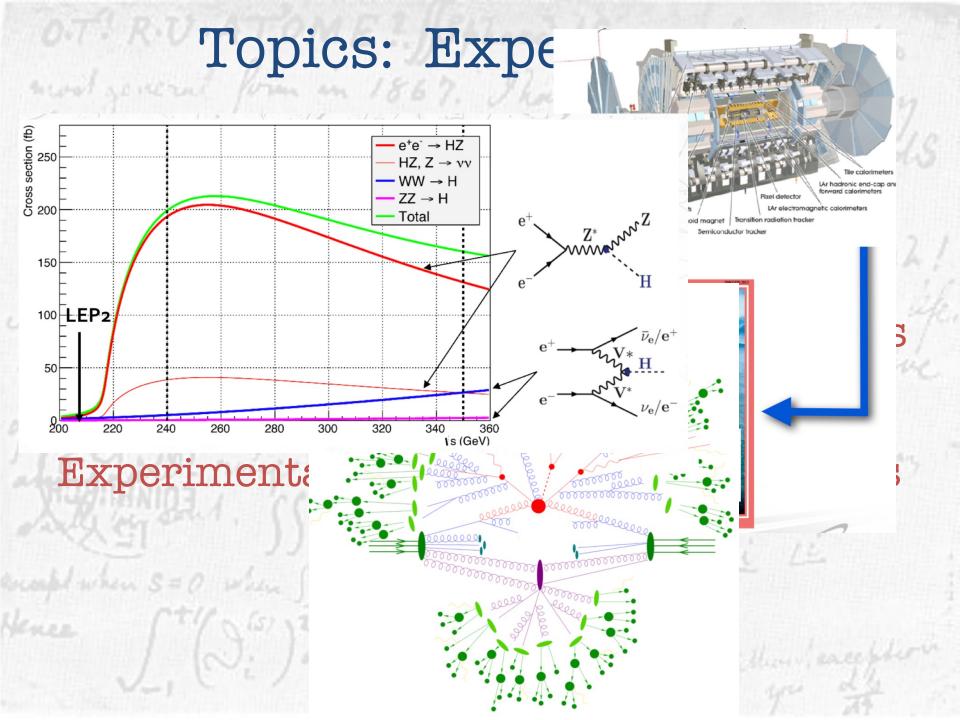
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Heavy Ions Francesca Bellini

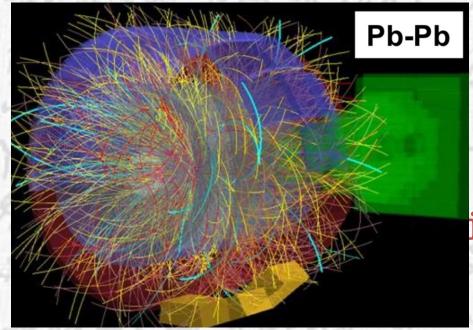
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Nuclear Physics at CERN Magdalena Kowalska

> Flavour Physics Yasmine Sara Amhis

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Antimatter in the Lab Barbara Maria Latacz



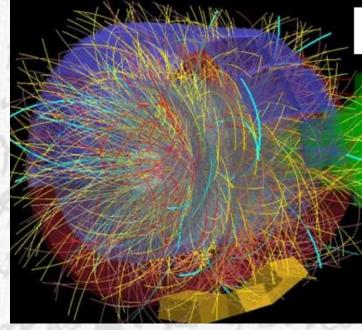
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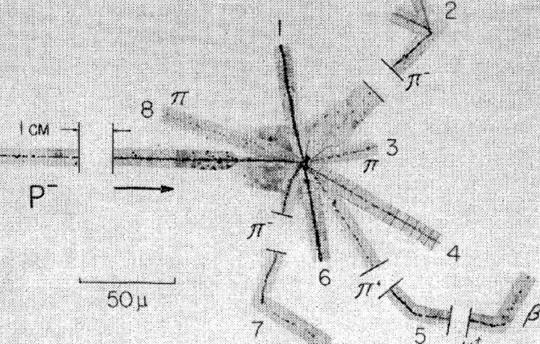
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Antimatter in the Lab

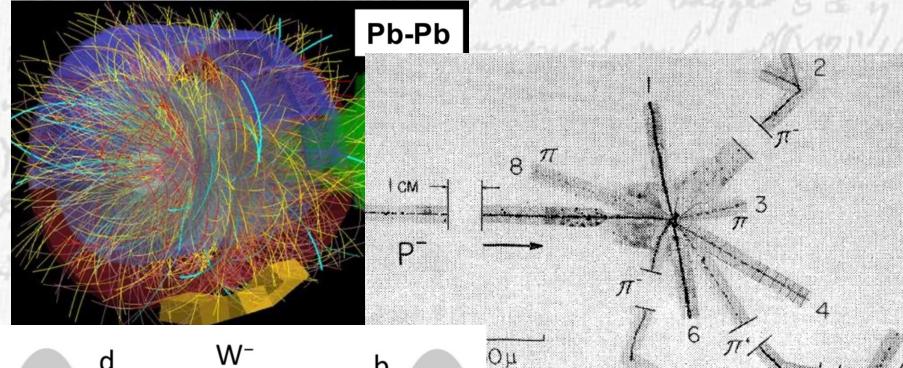


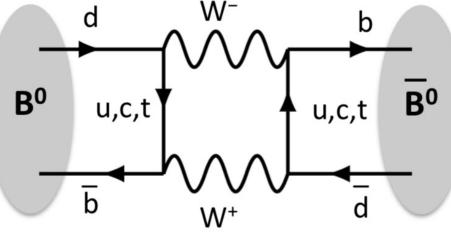
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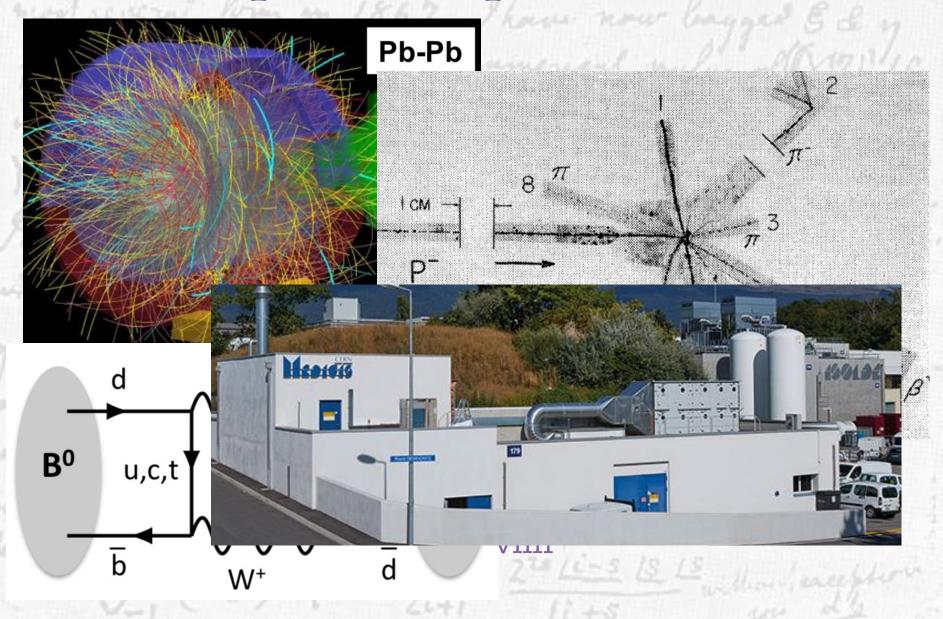
Antimatter in the Lab





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Topics: Theory

David Tong

Theoretical Concepts in Particle Physics Tim Cohen

> The Standard Model Andreas Weiler

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Beyond the Standard Model Tevong You

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Topics: Theory

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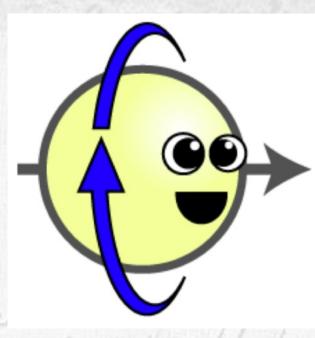
Making Predictions at Hadron Colliders Alexander Huss

Neutrino Physics Joachim Kopp

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Quantum Gravity Kyriakos Papadodimas



pics: Theory Particle World

Concepts in Particle Physics

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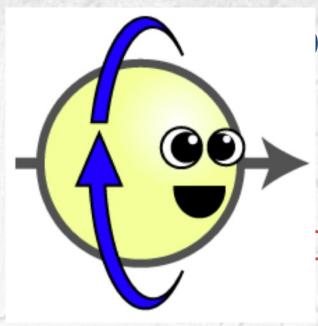
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Making Predictions at Hadron Colliders

What is String Theory?



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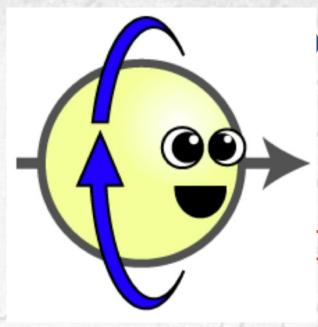
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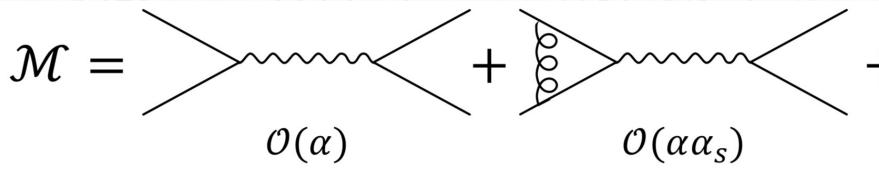
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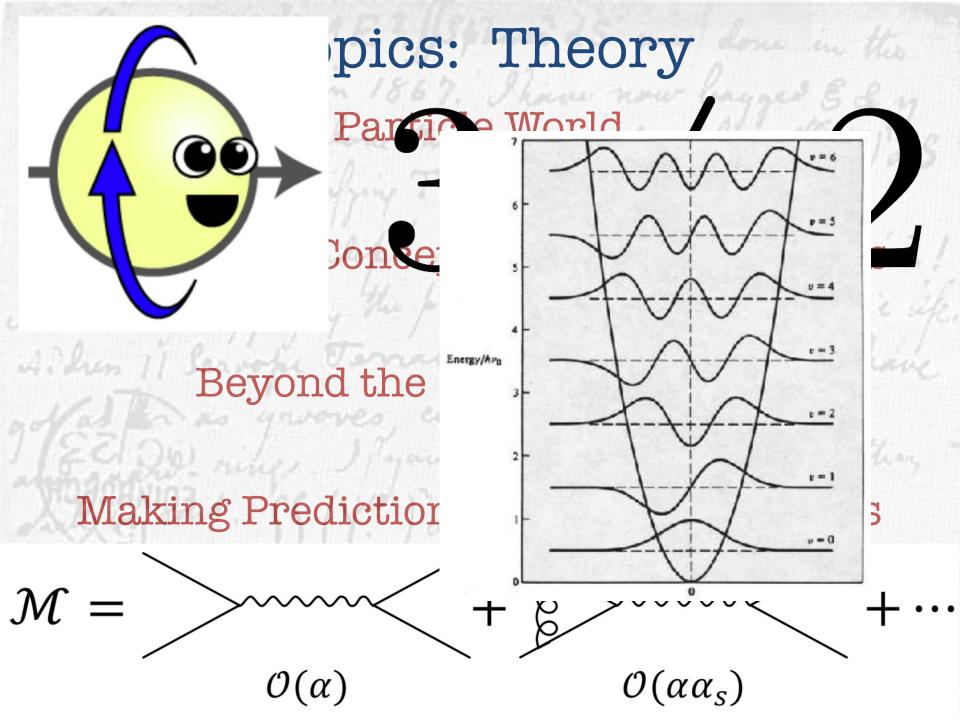
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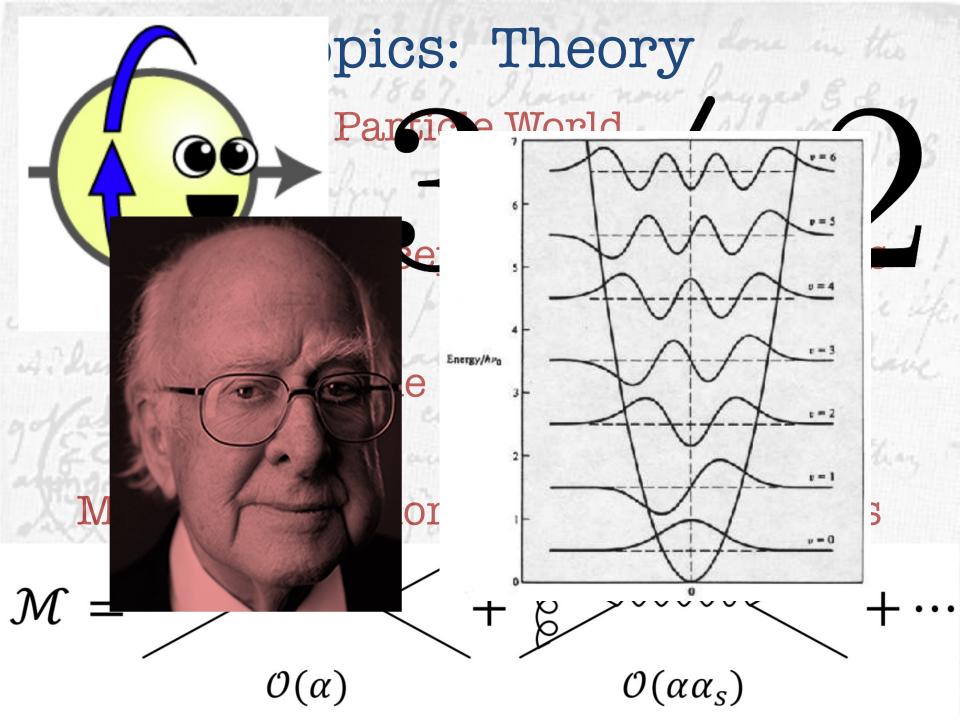
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Making Predictions at Hadron Colliders







Topics: Astroparticle

Astroparticle Physics Bradley Kavanagh

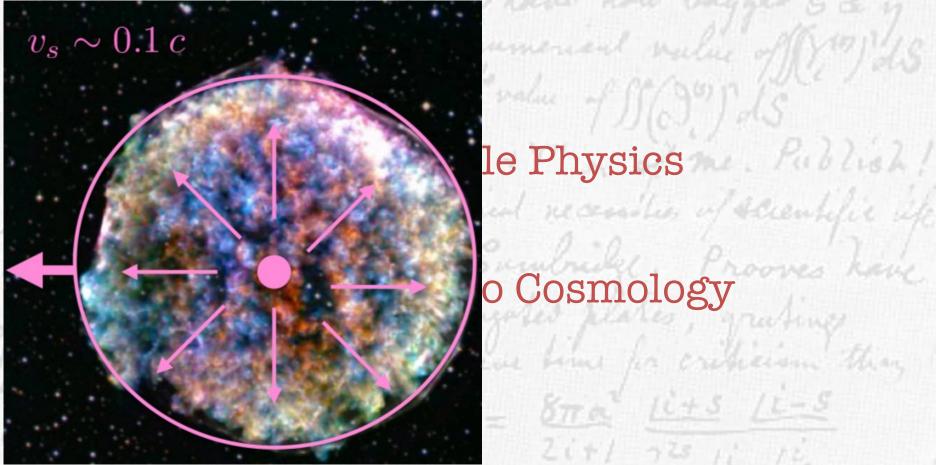
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Introduction to Cosmology Daniel Baumann

Topics: Astroparticle



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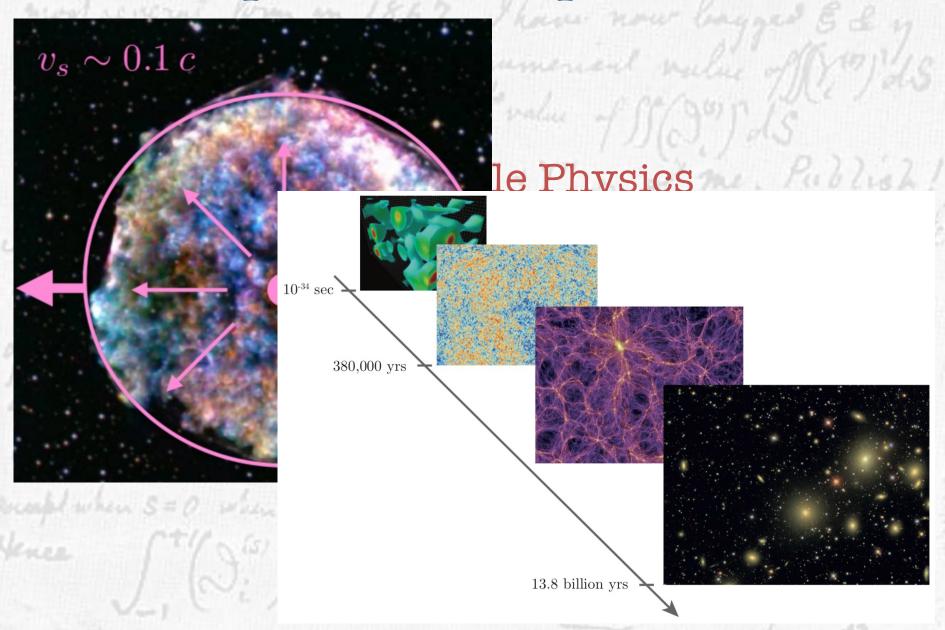
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Topics: Astroparticle



Topics: Statistics/Computing

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Foundation of Statistics Glen Cowan

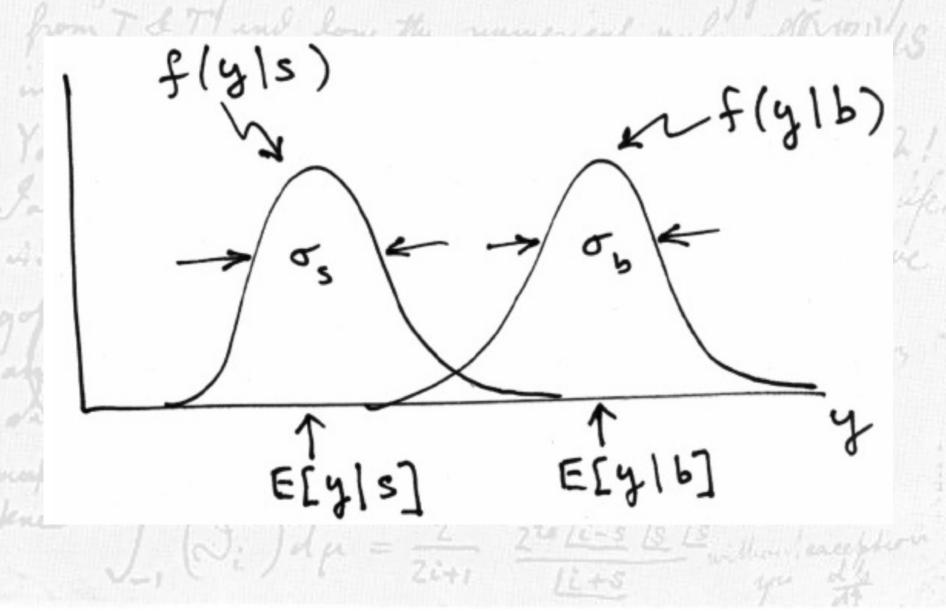
OpenLab!

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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

INSPIRE HEP

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:
- <u>catalogue.library.cern</u>



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!