CERN’s Education and Education Research Projects
Why?

- **Awareness** about CERN and its activities
- **Commitment** to explain general public what we do and why
- **Support** for CERN from decision makers
- **Engagement** with the general public
- **Education** and inspiration for schools and teachers
Audiences

- Media, Governments
  - Press Office, Publications, Web, Social Media, VIP Visits
- Teachers
  - Teacher Programmes
  - Teaching Resources
- Schools
  - Students Programmes
  - S’Cool Lab
  - Virtual Visits
- General Public (local and global)
  - Guided Tours
  - Exhibitions at CERN
  - Travelling exhibitions
  - Special events (fairs, science museums, arts, local events etc.)
  - Photography and Video, Graphic Design
Teacher Programmes

teachers.cern.ch
CERN’s Teacher Programmes 2018

20 YEARS

33 National Teacher Programmes in native language | 4-6 days

International High School Teacher Programme
HST | in English | 3 weeks in July

International Teacher Weeks Programme
ITW | in English | 2 weeks in August
International Teacher Programmes

HST2018 (01.-21. July)
47 teachers from 34 different countries

ITW2018 (5.-18. August)
46 teachers from 35 different countries
S‘Cool LAB

cern.ch/scool
Summer CAMP 2018

24. July to 4. August

30 students
11 days

- Hands-on experience
- Own research project
- Visits
- Lectures & tutorials

CERN, Geneva
the world’s largest particle physics laboratory

Free of charge
accommodation, meals & travel covered by CERN

24.7. - 4.8.18
apply until 05.02.2018
cern.ch/s-cool-lab
“CERN is a place where you can't avoid falling in love with science..”
Beamline for Schools Competition

cern.ch/bl4s
BL4S Outlook 2019

• 2019 and 2020: CERN’s accelerators will be switched off for maintenance and upgrade

• BL4S finals 2019 will take place at DESY, Germany

• 2020 BL4S finals may be hosted in more than one research laboratory

• From 2021: BL4S will be again possible in the refurbished East Hall at CERN
High-School Students Internship Programme (HSSIP)
cern.ch/hssip
HSSIP – in a nutshell

- Two weeks internship at CERN
- Up to 24 high-school students (16 years+)
- 12 supervisors working in different areas at CERN
- 5 countries per year
- Co-organised with a local and CERN based coordinators

The students have the chance to gain practical experience in science, technology, and innovation.
HSSIP - Objectives

• hands-on opportunity in an international research laboratory

• instilling scientific curiosity

• motivating high-school students to take on a career in science, engineering or another subject related to fundamental research
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HSSIP participant feedback

• Changed my view of “what scientists do”
• Impressed by the international, collaborative work
• Relation between science / particle physics and other disciplines more clear now
• Importance of computing knowledge

→ new high-school student ambassadors for CERN!
Physics Education Research (PER)
Physics Education Research

Social Semiotics
in Physics and Astronomy Education Research

Explaining Physics
What skills does a good explainer need?

Towards sustained Innovation in Education using Design-Based-Research

A new Approach to Teaching Electricity

Can Intelligence be trained?

Dr Urban Eriksson | University of Lund

Christoph Kulgemeyer & Haike Bartels
University of Bremen

Jan-Philipp Burde & Thomas Wilhelm
Goethe University Frankfurt

International Relations
Relations internationales
PER Seminar Outlook

Public seminars – recording available – agenda on Indico

• Design based research
• Feynman diagrams in education
• Citizen Science and Physics Education
Thank you for your attention