

Online Science Shows

"Learn physics in a fun way, with our interactive online science shows. Your students can participate both from the classroom and from home!"

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Teacher and Student Forum

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Online Science Shows

- Permanent offer since November 2020 (first shows for ScienceDaysDigital 2020)
- Substitution for the on-site workshops
- Suitable for classroom teaching as well as home schooling:

All needed for participation is a computer/tablet with speakers and internet browser (+projector if in classroom).

• Two shows are currently available:

"It's Just a Phase!"

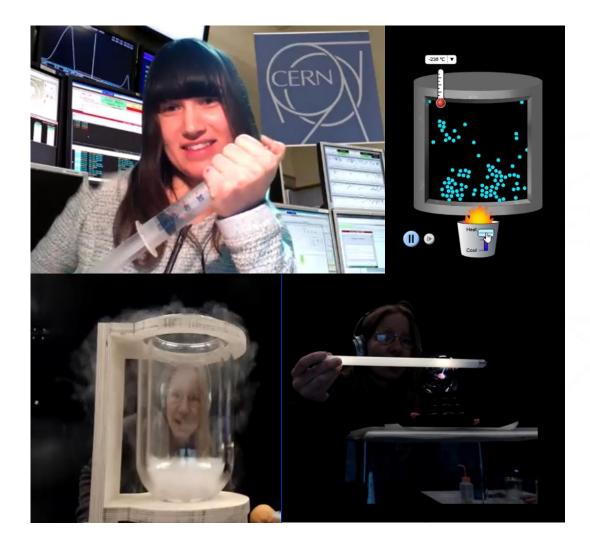
"Superconductors take off!"







Science show 1: It's just a phase!



- Live science demonstrations about phases and phase transitions
- Narrative thread revolving around a homemade particle detector
- Age group: 12-16 years
- Duration: 60 min



Science show 2: Superconductors taking off!

- Live science demonstrations about superconductivity and its applications
- Links to CERN research
- Age group: 14 19 years
- Duration: 60 min





Interactivity

Every show is a live performance

We make best out of Zoom features!

- Pre-formatted interaction:
 - Quiz questions
 - \circ Choosing the hypothesis
 - Choosing/manipulating the experiments

Which of the following properties can we observe on superconductors?

- a) glow in the dark.
- b) zero electric resistance.
- c) transparent.
- *d) interaction with magnets.*

- Free interaction:
 - Question & Answer
 - o Chat

What will happen to a balloon, when we put it in liquid nitrogen? Will it shrink, pop, expand, or change colour?

Live and interactive: Every show is unique and a special experience for the students



Target groups

- Local school via <u>https://voisins.cern</u> and newsletter
- All groups whose on-site workshop have been cancelled:
 "S'Cool LAB+ groups", done in first trimester of 2021)
 "cloud chamber groups", planned in April to June 2021
- Teacher networks
- Science outreach networks
- Direct contacts
- Other: request from virtual science camps / festivals







- Since the start in November 2020, we performed 30 shows with a total of 1500 participants, with a mean of 50 participants per show.
- We participated to a virtual science camp and two national virtual science festivals: ScienceDaysDigital 2020 (DE) and STEMtastic 2021 (UK).
- Mostly very positive feedback from teachers and students.
- We started with German, now we offer both shows in German, French, English, and Slovenian. Finnish, Italian, and Spanish coming soon.
- We are recruiting and training tutors to support us with the shows.





Merci bien!



