



Local Engagement

2018 public events



4 general public events

- **7-8 July: Nuit de la Science (Perle du Lac)**
invited by Musée de l'histoire des sciences
- **1 August: Fête nationale suisse (Parc La Grange)**
invited by Geneva Mayor
- **28 September: Researchers Night (Esplanade des Particules)**
organized by CERN in frame of European effort
- **13 October: Fête de la Science (Ferney-Voltaire)**
invited by Ferney-Voltaire Mayor

What was proposed

	Nuit de la science	Fête nationale	Researchers Night	Fête de la science
Mega posters	★	★		★
IT Workshops		★	★	
Cloud Chamber workshops			★	
Particle Identities		★	★	★
ATLAS Colouring book	★	★		★
Connect the dots	★	★		★
Funny Hands On	★	★		★
VR tour	★	★	★	★
Fun with physics show		★	★	★
Guided Tours			★	
Exhibitions			★	
Interaction with scientists	★	★	★★★	★

Mega posters

- CERN in the local area
- LHC Tunnel
- CMS Detector slice
- Collision in ATLAS

*Very good medium to initiate discussion,
tell a story and lead visitors to activities.*



IT workshops

- Program a robot
- Introduction to programming
- As from 7 years old
- 1 adult per 3 children

*Extremely popular but constrainful:
needs quiet space, capture audience for
45 minutes and have others to wait for
next workshop. Not advised above 1'000
visitors.*



Cloud chamber workshops

- *Organized by S’Cool LAB*
- 45 minutes long
- As from 12 years old

Very popular but needs a place specifically built for it (darkness, storage, air flow etc)

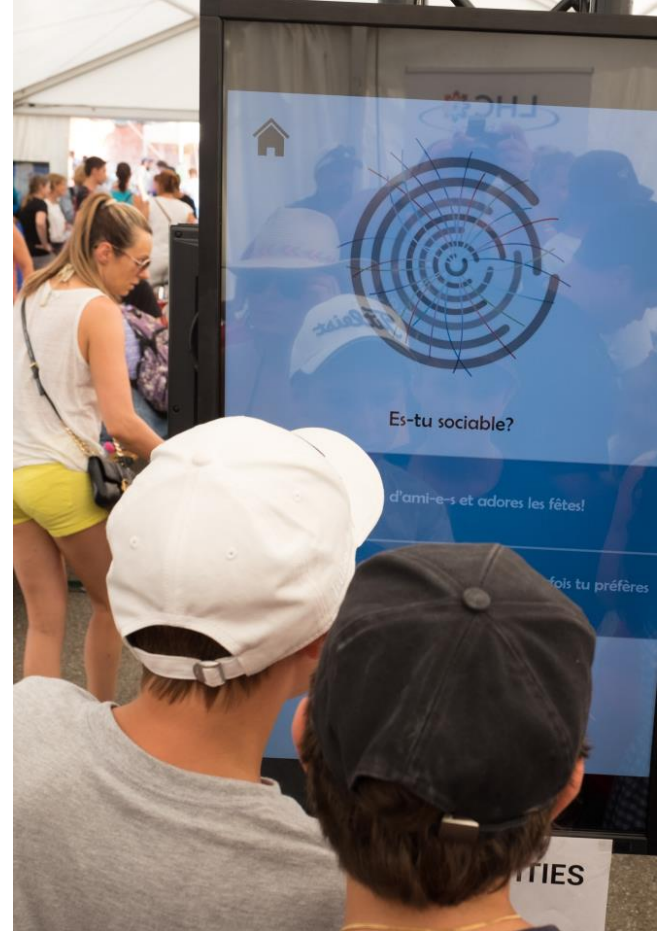


Particle identities

- cern.ch/identities
- Created by S'Cool LAB
- Answer 7 questions and discover which particles suits most your personality
- Take home your particle badge

Easy to setup. Has real content.

Better with volunteers for further explanation.



ATLAS colouring book

- atlas.ch/colouring-book
- Designed by ATLAS outreach
- Available in EN, FR, DE, PT, SK, TR, AR
- Needs printed copies and pencils

Extremely easy to setup but interactions with kids stay limited. Usually used by kids while parents were playing Connect the Dots (see next)



Connect the dots

- cern.ch/connectdots
- Needs only printed sheets (A3) and pencils
- *Mini Masterclass* for 10 years old onwards
- Available in EN, FR so far

*Easy to setup. Has real content.
Needs volunteers for explaining, commenting.*



Funny Hands On

- Does a (magnetized) ball fall faster in a copper or plexiglass tube ? – *Foucault current*
- Build a battery with your own hands – *Electricity*
- Simple electric train with a wire, a battery and 2 magnets – *Magnetic and electric fields*
- Build an electric motor with a copper wire, a battery and a magnet. – *Magnetic and electric fields*
- Visualize the magnetic field in 3D – *Magnetic field*
- What are the properties of vacuum? – *Vacuum*
- Will a ball fall faster in a vacuum tube? – *Vacuum*

Easy to setup. Has real content. Principles used in the LHC. Needs 1 volunteer per hands-on !



VR tour

- 2 clips (2:30 min): CMS and Grid Computing
- Exists in FR and EN so far
- 7 Oculus Go headsets

Extremely popular. Very efficient. Great medium to give maximum waow effect and general background information.

Needs 1 volunteer for 2 headsets.



Fun with physics show

- *45 minutes*
- *From 7 years old*
- *States of matter*
- *Interactive (ask the audience)*

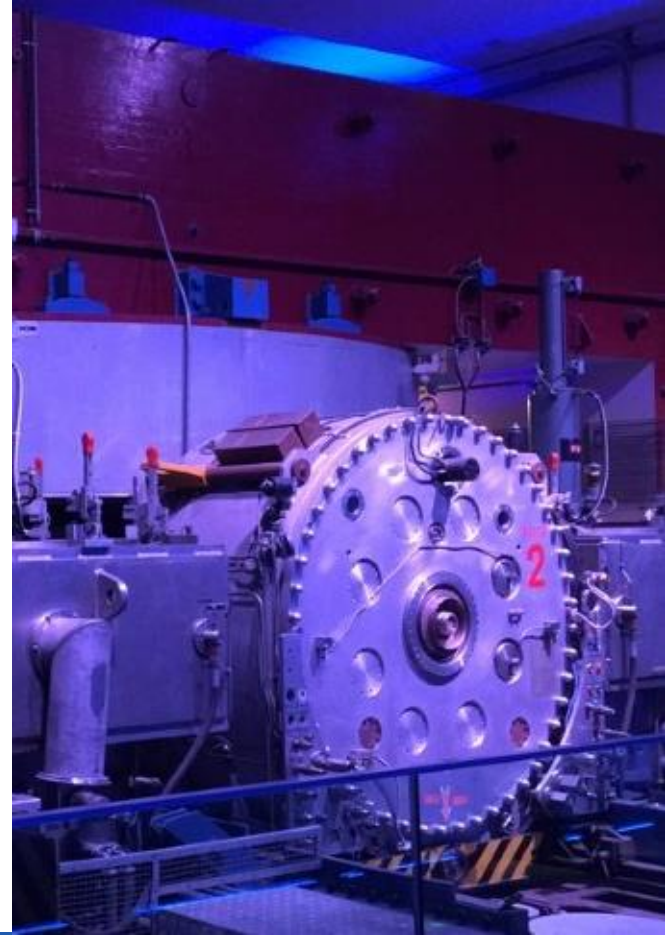
A classic. Always crowded. States of matter is taught in local primary schools. Some safety constraints.



Guided tours

- Synchro cyclotron
- Provided in EN, FR
- 1000

A must have. People want to see places.



Exhibitions

- Microcosm and Universe of Particles (for Researchers Night only)
- *Available in EN, FR, (DE, IT)*

*Offer much unknown to locals.
Would require more promotion.*



Interaction with scientists

- Researchers Night: special effort by «smaller» experiments: TOTEM, ISOLDE, CLOUD,
- Hands On, Posters and interaction

Much enthusiasm from the smaller experiments while clearly less resources available. Interesting to show research diversity (not only the LHC)



Lessons learnt (1/2)

- Very high interest from general public:
 - 10'000 Nuit de la Science
 - 2'000 Fête nationale suisse
 - 4'500 Researchers Night (we were expecting 2'000 max)
- Mostly families with kids, even quite young (less than 7 years old)

Lessons learnt (2/2)

- No specific expectation (« *What can I do here?* »)
- Tours, workshops and hands-on are clearly the most popular
- Films and conference less interesting
- Visitors want to **DO THINGS** and **SEE PLACES**
- Favor jump-in jump-out activities vs scheduled activities