



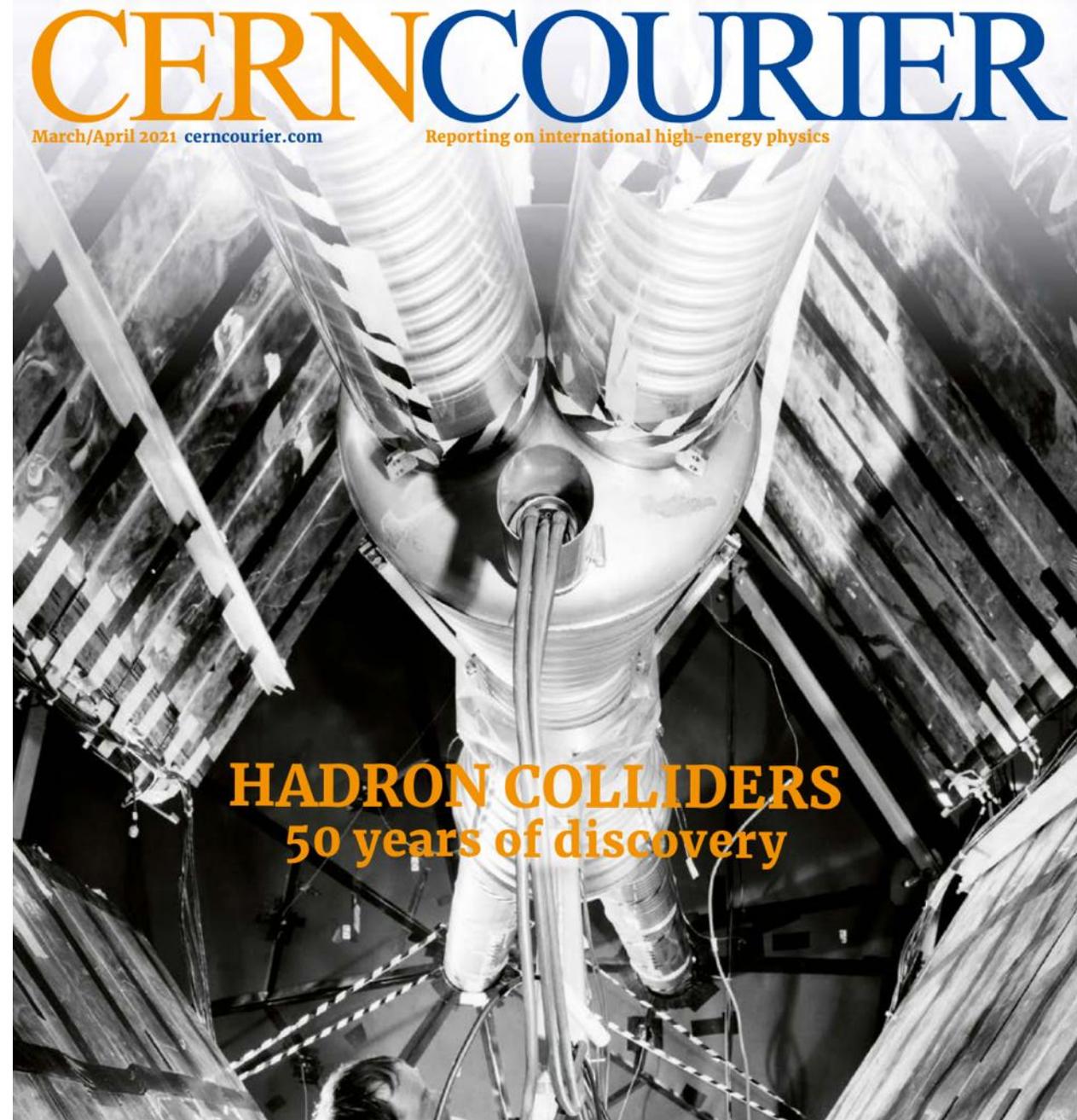
How to build a hadron collider: lessons from the past

Naomi Dinmore (CERN/IR-ECO), Sebastian White (University of Virginia)

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Why “How to build the next collider?”

- **Sebastian White’s initial idea**
 - Worked at all 5 hadron colliders
 - Interviews with various important people from different stages of hadron collider development
 - This kind of knowledge is hands-on, personal experiences
 - There is a gap in the market for this knowledge – never has been done in this format before
 - Need to have a way of communicating this knowledge to the next generation – those who will develop the next hadron colliders at CERN



Strategic vision

STATEMENTS

CERN's vision is:

TO GAIN UNDERSTANDING OF THE MOST
FUNDAMENTAL PARTICLES AND LAWS OF
THE UNIVERSE

CERN's mission is:

1. To perform world-class research in fundamental physics;
2. To provide a unique range of particle accelerator facilities that enable research at the forefront of human knowledge, in an environmentally responsible and sustainable way;
3. To unite people from all over the world to push the frontiers of science and technology, for the benefit of all;



The FCC (Image: CERN)

To show the scientific process in action - highlighting the efforts, ingenuity and creativity it takes to build frontier scientific tools

Highlight the importance of “intellectual freedom” for ingenuity to thrive in frontier research, as opposed to a too structured organized approach

To document the succession of “eureka moments” and the importance of finding out-of-box solutions to technical challenges, through hands-on personal experiences of the interviewed characters

Create the consensus for the next collider to emerge from the community

How do we turn this vision into a product?

vision



Challenges and opportunities:

- Reaching our target audience:
 - early-career scientists
 - science enthusiasts
 - specialised media
 - avid podcast consumers
- Choosing the right channel
- Deciding style, content, and duration

product



What will the series include?



Subject: How to Build a Hadron Collider: Lessons from the Past

Purpose: Information, entertainment, immersion in the field, inspiration for early career scientists

Interviews with key players throughout hadron collider history:

- The unique liason between theory and experiment from a pupil of Enrico Fermi - **Jack Steinberger**
- The first collider: how the ISR pushed the energy frontier (and missed an important discovery) - **Luigi di Lella**
- Physics results at the first colliders, Serpukhov and ISR - **Igor Dremin**
- Antimatter, cooling, and more tales from the loop - **Fritz Caspers**
- The international collboration comes to the Midwest - **Giorgio Bellettini**
- The LHC dream: the huge challenge of detecting the Higgs boson - **Jim Virdee**
- How to build a fixed-target experiment for a collider - **Tatsuya Nakada**
- What's next: betting on a muon collider - **Carlo Rubbia**
- How science works: tales from the kitchen table - **Antonija Utrobicic**
- **...and more still to come!**



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