

CERN's accelerators, experiments and international integration 1959–2009

In December of 2009 a symposium took place at CERN, *50 years of Nobel Memories in High-Energy Physics*, where many Nobel laureates in this field participated. It came at the time of the 50th anniversary of the CERN Proton Synchrotron (CPS), the most important project of the then young CERN laboratory, reaching design energy in November of 1959, and very much at the time of the first collisions being produced by the Large Hadron Collider (LHC). Several other developments such as the Intersecting Storage Rings (ISR) or the Large Electron-Positron Collider (LEP) were also recognised by the speakers at the time of the symposium, Simon van der Meer, who shared the Nobel Prize of 1984 awarded for the invention of stochastic cooling, was already too ill to attend as a speaker. He sadly passed away in March 2011.

The talks given at this two-day event were recorded and eventually transcribed. The original video recordings can be found as part of the CERN conference web archive. Some of the transcribed talks; those grouped together in this topical issue of *The European Physical Journal H – Historical Perspectives on Contemporary Physics*, were eventually reworked over quite some time to fit the conditions of journal publication. The final versions reflect somewhat the availability and willingness of the authors to meet these conditions. The aim of these articles is to serve both as documents of reference for fellow physicists, as well as primary sources for historians of science. Indeed, incomplete or biased personal recollections as they may be, by definition of their scope, might well be the only sources that will remain available in the future with regards to some relevant insights or chronological details when it comes to reconstructing one of the major scientific achievements of the 20th century, that is, the making and testing of the Standard Model of particle physics. Last but not least they bear testimony to the pioneering spirit of those days, thus providing encouragement and guidance for the presently active generation of high energy physics physicists in their major collaborative effort to advance the field decisively again, with the help of the LHC. Of course, this collection of articles cannot give a comprehensive and complete review of the history of particle physics. In particular theory is covered only as far as it is required to understand the experiments.

However, in order to make this issue more complete topic-wise, three regular papers have been subsequently invited: a short review on the CERN Intersecting Storage Rings (ISR) by Kurt Hübner, a review of the search for the Higgs in the final days of the LEP and its consequences for the Higgs search at LHC, by Wolf-Dieter Schlatter and Peter Zerwas and last not but not least, a comprehensive historical review on stochastic cooling by Friedrich Caspers and Dieter Möhl.