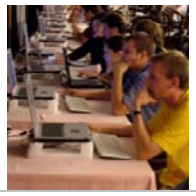
CERN School of Computing



The CERN Schools of Computing: A Summer University

Since the early seventies CERN has organized the CERN Schools of Computing (CSC), usually held in August/September. They last two weeks and are open to postgraduate students and research workers with a few years of experience in elementary particle physics, in computing or in related fields. Attendance ranges usually from 60 to 80 students, typically of 15 to 30 different nationalities.

Objectives of the school

The school aims at creating a common technical culture in scientific computing among young scientists and engineers involved in particle physics or in sister experimental disciplines, as a strategic direction to favour mobility and to facilitate the development of large computing-oriented transnational projects

Summer University

CSCs are not conferences. They are places to learn advanced academic topics, taught by a few high-quality lecturers, what ensures overall coherence. Attendance to the full programme is mandatory, examinations are organized and formal diplomas are delivered.

As a result, CSCs are true summer universities

Theory and practice

The two-week programme of the CSC series is comprised of a series of lectures and hand-on exercises.

The hands-on part is a central component of the school, and is often structured in the form of projects to be carried out by groups of students. To this end, a computing infrastructure is created on the site of the school.

Examination and European Certificate

A final examination is proposed to students since 2002. In case of success, the **CSC Diploma** is delivered by CERN. In addition, since 2008, a Certificate of 5 to 6 **ECTS** Credit Points (European Credit Transfer System) is delivered by the host University. These may be used by participants engaged in university curricula to obtain credits.

Sport Programme

Introduced a few years ago, the sport programme proposes two to three hours of sport every afternoon to those who are interested. The aim of the programme is not only to provide a healthy work-life balance before the late afternoon working sessions begin, but it also provides additional opportunities for interactions between students, lecturers and organizers. Several of the lecturers act as sport instructors or organizers.
Sports usually proposed include swimming, volleyball, basketball, floorball, climbing, squash, badminton, tennis, football, hiking, biking, and whenever possible canoeing, kayaking, sailing, or horseback riding.

Who are the CSC students?

Students apply to the CSC from all over the world. The selection process takes into account the academic and technical background of the applicants, their age, areas of work and interest, expectations, geographical origin and gender.

Origin of students over the past eight years (59 nationalities):

Albania, Algeria, Armenia, Austria, Bangladesh, Belarus, Belgium, Bosnia & Herzegovina, Bulgaria, Brazil, Bulgaria, Canada, Cameroon, Chile, Colombia, Croatia, Czech Republic, Denmark, Egypt, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, India, Iran, Iraq, Israel, Italy, Japan, Korea, Lithuania, Mexico, Moldova, Morocco, New Zealand, Norway, Pakistan, People's Republic of China, Poland, Portugal, Romania, Russia, Serbia and Montenegro, South Africa, Slovak Republic, Spain, Sweden, Switzerland, Tunisia, Taiwan, Turkey, The Netherlands, United Kingdom, Ukraine, USA, Venezuela

Facts and figures

Since 1970, **32** schools have been organized in 19 different countries, attended by a total of **2068** students. Since the inception of the CSC examination in 2002, **453** participants have successfully passed and took the CERN School of Computing diploma.