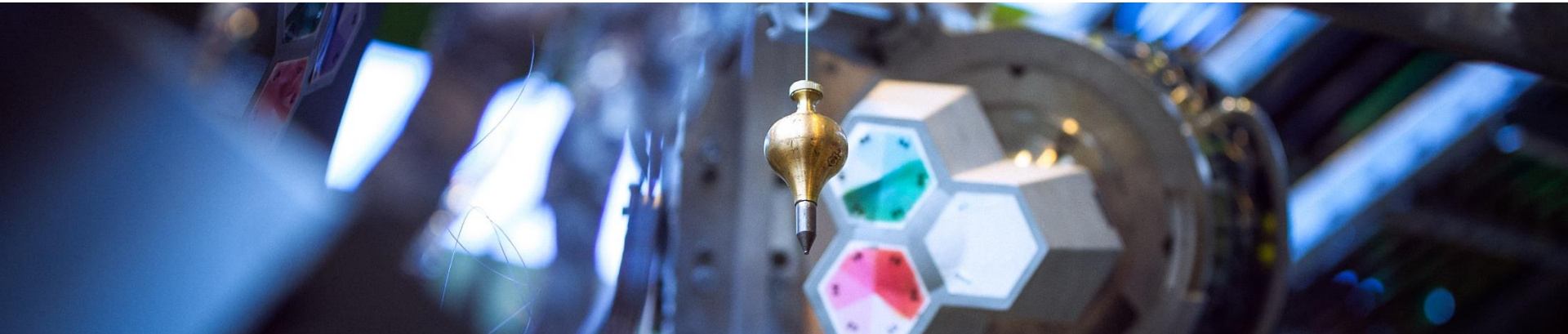


Welcome to the
10th inverted CSC

CERN, March 6-8, 2017

<https://indico.cern.ch/e/iCSC-2017>



Sebastian Lopienski

CERN School of Computing director

Three CERN Schools of Computing

CSC 2017



Main school

27 Aug - 9 Sep 2017

[Universidad Politécnica de Madrid](#) |
Madrid | Spain

**Applications open March
2017**

tCSC 2017



Thematic school

4 Jun - 10 Jun 2017

[MEDILS](#) | Split | Croatia

iCSC 2017



Inverted school

6 Mar - 8 Mar 2017

[CERN](#) | Geneva | Switzerland

Back in
2005...

- ✓ Have you ever heard of **Enterprise Computing**, is it relevant to physics computing?
- ✓ Do you know what **Design Pattern** is?
- ✓ Are you sure the software you write has no **security holes**?
- ✓ Are you sure that you know and master **modern debugging** tools?
- ✓ Do you know how to design (effectively) a **database schema**?
- ✓ What is the secret to writing an efficient **SQL** query?
- ✓ What is database **performance tuning**, why is it perceived as magic and how to tame it?
- ✓ Do you know how to read an **execution plan**?
- ✓ How does **Google** News work?
- ✓ Do you know, in practice how to expose your application as a **Web Service**?
- ✓ Are you sure your Web Services are **secure**?

All the answers at ICSC

iCSC
CERN
School of Computing

inverted CSC-2005

"Where students turn into teachers"



23-25 February 2005, CERN*

- ▶ Data Management and Data Bases
- ▶ Advanced Software Development and Engineering
- ▶ Web Services in Distributed Computing

- a novel idea prototyped in 2005
- a three-day series of lectures proposed and delivered by selected students
- advanced topics, rarely taught at CERN before

Lecturers - all former CSC2004 students

Paolo Adragna	University of Siena
Miguel Anjo	CERN
Ioannis Baltopoulos	Imperial College
Gerhard Brandt	University of Heidelberg
Giovanni Chierico	CERN
Brice Copy	CERN,
Michal Kwiatek	CERN
Ruben Leivas Ledo	CERN
Sebastian Lopienski	CERN
Petr Olmer	CERN
Zornitsa Zaharieva	CERN

"Where
students
turn into
teachers"

2017: the 10th edition of the iCSC

2005

23-25 February 2005, CERN*

- Data Management and Data Bases
- Advanced Software Development and Engineering
- Web Services in Distributed Computing

2006

6-8 March 2006, CERN*

- Computational Intelligence for HEP Data Analysis
- The Art of Designing Parallel Applications
- Software Testing: Fundamentals and Best Practices

2008

1-5 March 2008

Register now to get the printed booklet
Free attendance possible

2010

4th iCSC CERN School of Computing

inverted CSC-2010
"Where students turn into teachers"

8-9 March 2008, CERN*

2011

5th iCSC CERN School of Computing

inverted CSC-2011
"Where students turn into teachers"

3-4 March 2011, CERN*

2013

6th iCSC CERN School of Computing

inverted CSC-2013
"Where students turn into teachers"

25-26 February 2013, CERN*

- GPU Computing in HEP
- Computer Vision
- Testing for large scale systems
- Grid Interpretations by LHC experiments

2014

7th iCSC CERN School of Computing

inverted CSC-2014
"Where students turn into teachers"

24-25 February 2014, CERN*

2015

8th iCSC CERN School of Computing

"Where students turn into teachers"

23-24 February 2015

2016

9th Inverted CERN School of Computing

29 February - 2 March 2016

2017

10th Inverted CERN School of Computing

6 - 8 March 2017

iCSC lecturers becoming full CSC lecturers



- Sebastian Lopienski (*iCSC 2005*)
- Andrzej Nowak (*iCSC 2008*)
- Benjamin Radburn-Smith (*iCSC 2010*)
- Thomas Keck (*iCSC 2016*)

The logo for the CERN School of Computing (iSC) features a lowercase 'i' in red and 'SC' in a teal, stylized font. Below this, the text 'CERN School of Computing 2017' is displayed, with 'CERN' in black, 'School of Computing' in black with 'of' in teal, and '2017' in red.

CERN
School *of* Computing **2017**

Inverted CSC 2017

Received **11 proposals of lectures** for a total of **22 hours** by students from:

- CSC 2016 (*Mol, Belgium*)
- **t**CSC 2016 (*Split, Croatia*)
- CSC 2015 (*Kavala, Greece*)

6 proposals retained – **12 hours**

- including 1 hour of experimental **hands-on workshop**

Schedule

<https://indico.cern.ch/event/591368/timetable>

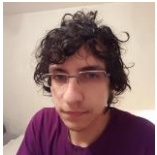
Monday, 6 March 2017		Tuesday, 7 March 2017		Wednesday, 8 March 2017	
		09:00	Applying natural evolution for solving c...	09:00	Creating Effective Data Visualizations - ...
		10:00	Distributed consensus and fault toleran...	10:00	Distributed consensus and fault toleran...
		11:00	Coffee	11:00	Coffee
		11:30	Algorithms for Anomaly Detection - Lec...	11:30	Applying natural evolution for solving c...
		12:30	Lunch	12:30	Lunch
14:00	A word from the IT Department Head - F...	14:00	Virtual Machine Images Management in...	14:00	Creating Effective Data Visualizations - ...
14:15	Introduction to the inverted CSC - Seba...				
14:30	Let your machine do the learning - Lect...				
15:30	Coffee	15:00	Coffee	15:00	Coffee
16:00	Algorithms for Anomaly Detection - Lec...	15:30	Let your machine do the learning - Lect...	15:30	Let your machine do the learning - han...
				16:30	Closing remarks - Sebastian Lopienski (C..

Artificial Intelligence
hands-on workshop!

Topics



Artificial Intelligence



Distributed Consensus & Fault Tolerance



Anomaly Detection



Evolutionary Computation



VM Image Management



Data Visualizations

Lecturers

<https://indico.cern.ch/event/591368/page/9113-speaker-biographies>



Georgios Bitzes
CERN



Daniel Campora
*Universidad de Sevilla
(Spain) and CERN*



Michael Davis
CERN



Daniel Lanza
CERN



Lorena Lobato Pardavila
*University of Oviedo
(Spain) and CERN*



Eamonn Maguire
*Pictet Asset Management
(Geneva, Switzerland)*

Conveners (session chairs)



Alejandro Aviles



Frank Berghaus



Broen van Besien



Ina Gkotse



Xavier Valls

Mentors (providing advice&feedback to lecturers)



Danilo Piparo



Nikos Kasioumis



Sebastian Lopienski



Alberto Pace



Sebastien Ponce



Olivier Couet



Enric Tejedor



Ivica Puljak

CSC Administrative Manager




Cath Noble

Previous CSC Director



Alberto Pace

Logistics

- You can attend only selected lectures
 - but **please be on time for the start**,
and avoid leaving in the middle of a lecture
- Please silence your phone A red circle with a diagonal slash over a black mobile phone icon, indicating that mobile phones should be silenced.
- Please use the microphone when asking questions
 - lectures are webcast and recorded
- Enjoy coffee and snacks
 - an opportunity to discuss with lecturers and colleagues

iCSC booklet



For those registered participants
... and others, if enough copies

Enjoy the School!

