

INTERNATIONAL MASTERCLASSES HANDS ON PARTICLE PHYSICS

Video Conference

Moderators' orientation

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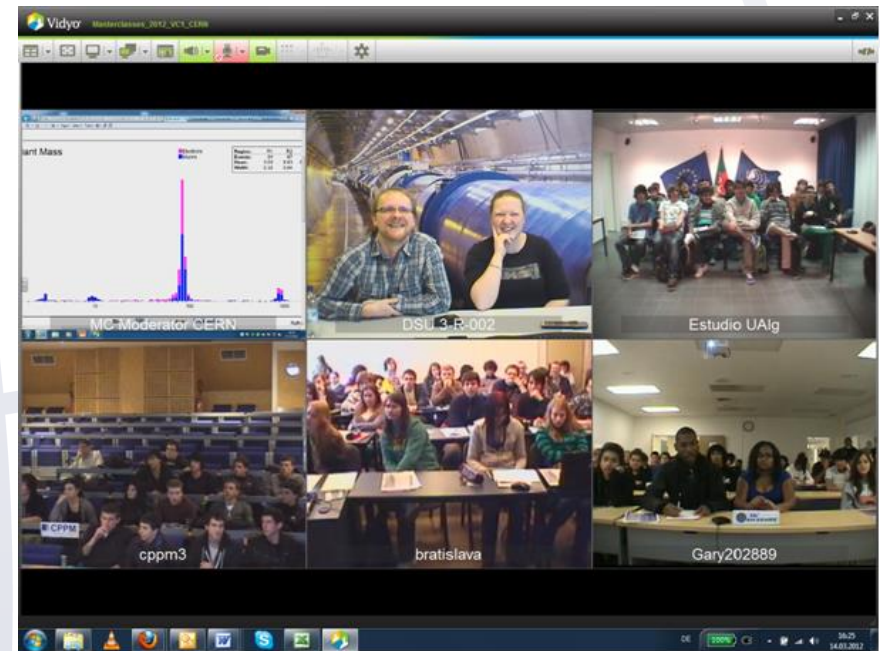
CERN, 05.03.2013



hands on particle physics

Concept of IMC

- High school students (15 – 19) are „researchers for one day“
- Get invited to university or research institute
- Introductory talks (standard model, detectors, accelerators)
- 2 h measurement (data from ALICE, ATLAS, CMS or LHCb)
- International video conference (3 – 5 inst. + CERN or Fermilab)



International Masterclasses 2014

- Organized by IPPOG (*International Particle Physics Outreach Group: independent group of outreach representatives from countries at CERN*)
- 12.3. - 12.4.2014
- 40 countries involved



Coord.: QuarkNet / TU Dresden

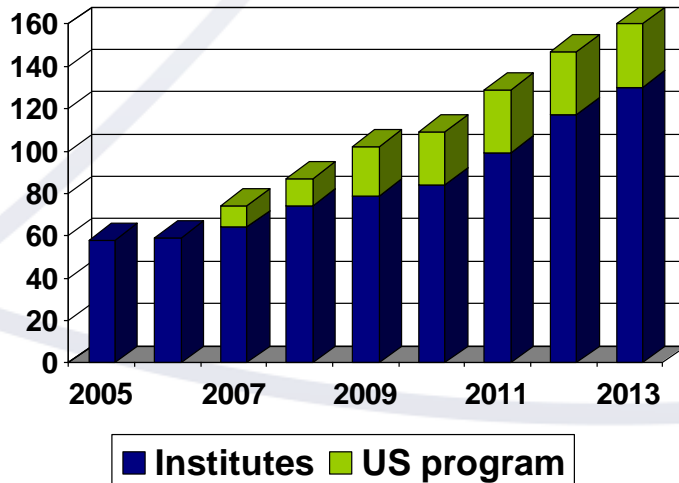
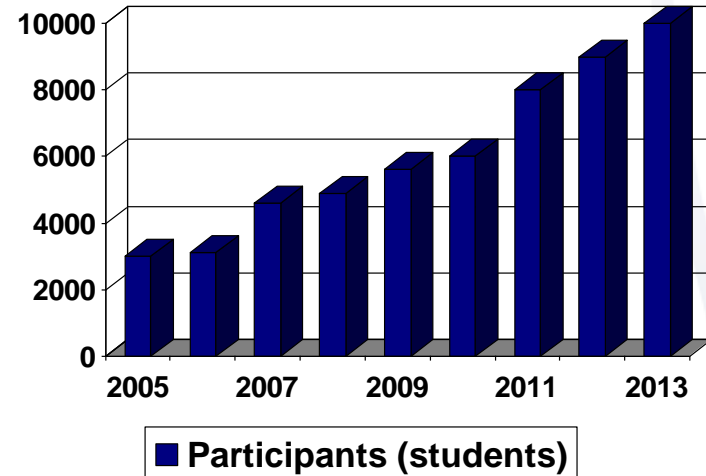
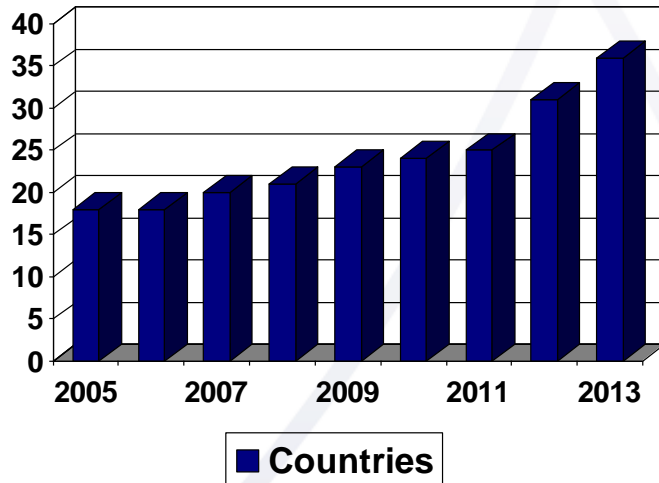


- 39 institutes
- 41 Masterclasses
 - 25 CMS
 - 16 ATLAS
- 19 video conf. with Fermilab



- 160 institutes
- 200 Masterclasses
 - 119 ATLAS
 - 46 CMS
 - 21 LHCb
 - 14 ALICE
- 48 video conf. with CERN

Participation Statistics

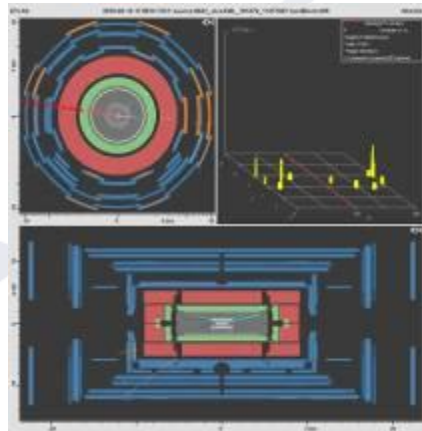
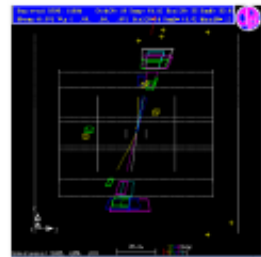
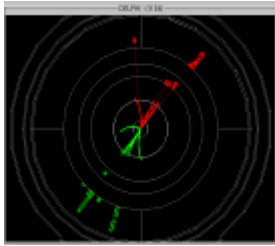


Planning for 2014:

- 40 countries
- 10.000 students
- 200 institutes



Brief History



- 1996: first Masterclasses in HEP in the UK (R. Barlow et al.), with LEP data
 - OPAL Identifying Particles
 - DELPHI Hands on CERN
- 2005: World Year of Physics - EPPOG/IPPOG started EU-wide program
- 2006: U.S. joining (QuarkNet)
- 2011: only measurements with LHC data
- 2012: IMC on all continents
- 2014: all major experiments represented (ATLAS, CMS, ALICE, LHCb)



Sample Agenda

LOCAL TIME:	ACTIVITY:
8:30 - 9:00	registration & welcome
9:00 - 10:00	introduction to Particle Physics
10:30 - 11:30	second talk or tour
12:00 - 13:00	lunch
13:00 - 15:00	data analysis, including introduction
15:00 - 16:00	local combination and discussion
16:00 - 17:00	video conference with CERN



Video Conference































	Mon, March 4	Tue, March 5	Wed, March 6	Thu, March 7	Fri, March 8	Sat, March 9
topic		VC 1: ATLAS Z	VC 1: ATLAS W	VC 1: ATLAS Z	VC 1: ATLAS W	VC 1: ATLAS Z
moderators		Andrée, Juan	Eva, Kilian	Predrag, Juan	Katharine, Duc Bao	Guilherme, N.N.
		Lecce	Valencia	Alexandria	Bucharest	Lisboa IST
		Birzeit	Tarnow	Barcelona	Katowice	Krakow
		Rehovot	Maynooth	Stockholm	Brookhaven	Quinhá
		Graz	Madrid IFT	Banska Bystrica	Marseille	
		Granada	London Queen Mary	Bergen	Curitiba	
topic	VC 2: CMS	VC 2: ATLAS W	VC 2: CMS		VC 2: CMS	
moderators	Sarah, Predrag	Katharine, Ricardo	Sarah, Chris	Sarah, Chris		
	Rio de Janeiro	Orsay	Nicosia	Athens, Demokritos		
	Santander	Lund	Zilina	Debrecen		
	Trieste	Marseille	Ponte Delgada	Vienna HEPHY		
	Helsinki	Durban	Perugia	Split		
				Cincinnati		

- VC 1 / VC 2 (same date, but different locations, physical and Vidyo!)
- Moderators work in pairs
- max. 5 institutes

<http://physicsmasterclasses.org/index.php?cat=schedule>



Moderators Schedule

 Mirko Casolino (ATLAS)	 Cinqueiro Mendez (ALICE)	 Ben Couturier (LHCb)	 Andre Inoco Mendes (CMS)
 Pasquale di Nezza (ALICE)	 Vava Gligorov (LHCb)	 Barbara Alvarez Gonzalez (ATLAS)	 Despina Hatzifotiadou (ALICE)
 Michael Hauschild (ATLAS)	 Ewan Hill (ATLAS)	 Roland Jansky (ATLAS)	 Konrad Jende (ATLAS)
 Jelena Jovicic (ATLAS)	 Jason Kamin (ALICE)	 Moritz Karbach (LHCb)	 Anna Kopp (ATLAS)
 Fabian Kuger (ATLAS)	 Katharine Loney (ATLAS)	 Predrag Milenovic (CMS)	 José Guilherme Milthano (Theory Unit)
 Chris Neu (CMS)	 Alice Ohlson (ALICE)	 Michael Planer (CMS)	 Susanne Reffert (Theory)
 Silvia Schuh-Erhard (Learning & Development)	 Pedro Schwaller (Theory)	 Kate Shaw (ATLAS)	 Eva Sicking (Linear Collider Physics & Detectors Group)
 Daniel Stolarski (Theory)	 Ana Trisovic (LHCb)	 Anja Vest (ATLAS)	 Michael Weber (ALICE)

date	Tue 1.4.	Wed 2.4.	Thu 3.4.	Fri 4.4.	Sat 5.4.
measurement	VC 1	VC 1	VC 1	VC 1	VC 1
moderators	ATLAS Z	ATLAS Z	ATLAS W	ATLAS W	ATLAS Z
	Silvia Muhammad	Katharine Fabian	Julia Mirko	Julia Kate	Noemi Ewan
	Athens Univ.	Lecce	Strasbourg	Strasbourg	Heraklion
	Lecce	Tuebingen	Munich	Erlangen	Lisbon, IST-2
	Grenoble	Barcelona	Roma Tre	Prešov	Braga
	Paris	London UC	Wuerzburg	Braga	Novi Sad
	Belgrade	Siegen	Wuppertal	Durban	
	5	5	5	5	4

date	Tue 1.4.	Wed 2.4.	Thu 3.4.	Fri 4.4.	Sat 5.4.
measurement	VC 2	VC 2	VC 2	VC 2	VC 2
moderators	ALICE R_AA	CMS	ALICE	ATLAS Z	ALICE
	Michael W. Jason	Sarah Michael P.	Pasquale Leticia	Anna Duc	Alice Stefania
	Frankfurt	Budapest Wigner	São Paulo	Marseille	Warsaw, Univ. Tech
	Darmstadt GSI	Brussels Vrije U.	Heidelberg	Dortmund	Geneva CERN
	Prague CTU	Firenze	Orsay IPN	Katowice	Cape Town
	Cairo ECTP	Catania	Nantes	Grenoble	Cairo ECTP
			Geneva CERN		
	4	4	5	4	4

date	Tue 1.4.	Thu 3.4.
measurement	VC 3	VC 3
moderators	LHCb	LHCb
	Vava, Ana, Tom, Moritz, Bolek	Vava, Ana, Tom, Moritz, Bolek
	Marseille	Dortmund
	Amsterdam	Paris
	Geneva CERN	Bucharest
	3	3

www.physicsmasterclasses.org/index.php?cat=schedule#moderators



Support /Material for moderators

- Twiki:

<https://twiki.cern.ch/twiki/bin/view/Main/InternationalMasterclassesModeratorManual>

- Manual:

https://twiki.cern.ch/twiki/pub/Main/InternationalMasterclassesModeratorManual/Manual_Videoconference_Moderators_v10.pdf



Enjoy your sessions!



Thank you for being part of International Masterclasses 2014!

