

ALICE : Looking for strange particles

Report on 2014 Masterclasses

Status of measurement in 2014
Summary from International Masterclasses 2014
Other events
Feedback

International Masterclasses Steering Group Meeting
Zeuthen-DESY, 15.5.2014

Identification and counting of K_s^0 , Λ , anti- Λ

First Part

Students (each group): Visual analysis of 15 events / invariant mass histograms

Institute (all groups): Add up numbers / merge histograms / comments

Second Part

Students (each group): Analyse events in centrality bins / invariant mass histograms

Students (each group): Fit curve/ subtract background / find number of K_s^0 , Λ , anti- Λ

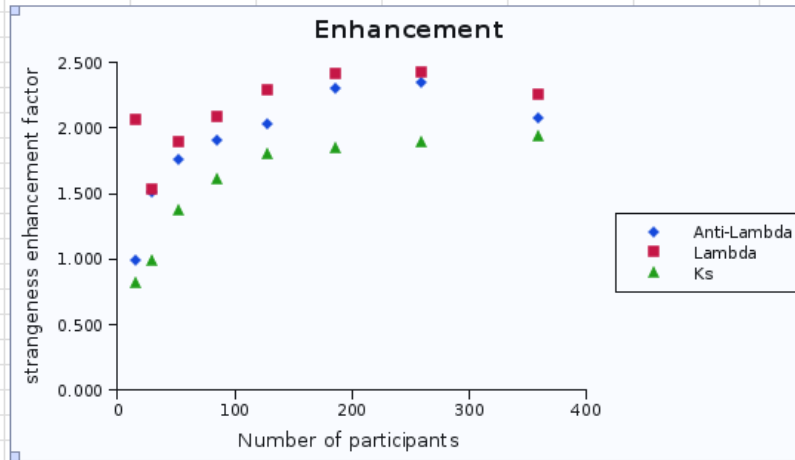
Institute (all groups): Calculate yields of each particle type

Calculate strangeness enhancement (ratio of yields normalised to N_{part}) / plots

•Measurement stable in 2014

Results

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
centrality	<Npart>	Nevents	NKs	efficiency Ks	yield Ks	Ks enhancem	Nlambda	efficiency L	Yield Lambda	Lambda enh	Nantilambda	effic antiL	yield antiLam	antiL enha
0-10	360	213	4816	0.26	86.963	1.933	1066	0.2	25.023	2.253	980	0.2	23.005	2.071
10-20	260	290	4638	0.26	61.512	1.893	1185	0.21	19.458	2.426	1142	0.21	18.752	2.338
20-30	186	302	3750	0.29	42.818	1.842	917	0.22	13.802	2.405	875	0.22	13.170	2.295
30-40	129	310	2610	0.29	29.032	1.800	621	0.22	9.106	2.288	550	0.22	8.065	2.026
40-50	85	302	1493	0.29	17.047	1.604	363	0.22	5.464	2.084	332	0.22	4.997	1.906
50-60	52	300	777	0.29	8.931	1.374	182	0.2	3.033	1.891	169	0.2	2.817	1.756
60-70	30	315	409	0.35	3.710	0.989	89	0.2	1.413	1.526	88	0.2	1.397	1.509
70-80	16	350	149	0.26	1.637	0.819	71	0.2	1.014	2.055	34	0.2	0.486	0.984



<http://www.editgrid.com/> spreadsheet filled by each institute
 Edit grid closed down 1st May 2014
 Will move to googledocs

“Looking for strange particles in ALICE” in the International Masterclasses in particle physics

14.3.2014

3.4.2014

5.4.2014

VC 2: ALICE	VC 2: ALICE	VC 2: ALICE
Alice, Despina	Pasquale, Leticia	Alice, Stefania
Frascati 	São Paulo 	Warsaw 
Prague CTU 	Heidelberg 	Geneva CERN 
Curitiba 	Orsay IPN 	Cape Town iThemba 
	Nantes 	Cairo 
	Geneva CERN 	

new institutes

- Cape Town (South Africa)
- Cairo (Egypt)
- Curitiba (Brazil)
- Warsaw University of Technology (Poland)

12 masterclasses in 2014

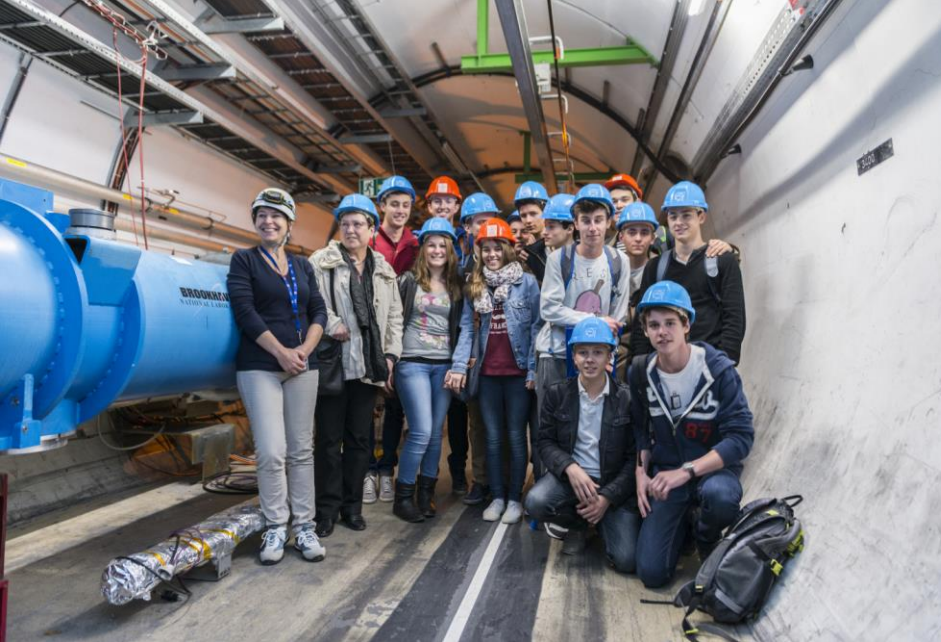
Some information from the 2014 sessions

3 April

- CERN
2 classes (terminal scientifique) from Lycée St. Marie de la Verpillière
65 pupils + 4 teachers
Data analysis in 4 rooms with PCs
- HEIDELBERG
52 students + 3 teachers from Heidelberg area

http://alicematters.web.cern.ch/?q=AMasterclasses_2014

http://alicematters.web.cern.ch/?q=masterclass_ALICE



Visit of ALICE and LHC tunnel Masterclasses 3 April 2014 (Lycée St. Marie – Verpillière)

Some information from the 2014 sessions

5 April

- CERN
20 students coming as individuals
analysis in one room with PCs
- CAPE TOWN
24 students from 6 different high schools
- WARSAW (WUT)
- 61 students from 8 different high-schools in Warsaw (+10 more)
- Data analysis in 6 rooms with PCs

Reports from Cape Town and Warsaw will appear in May 2014 issue of ALICE Matters

Feedback

- In general very positive
- Occasional comments about the videoconference (quality of sound etc)
- Comment from Brazil: they would prefer to do masterclasses in the autumn (for them spring is the beginning of the school year)

In addition to Linux systems, used Ubuntu Virtual Machine on Windows

Problem : Curitiba (Brazil) unable to connect to videoconference

Other Masterclasses

- Masterclass for Physics Teachers in Thessaloniki, Greece (February 2014)
50 high-school physics teachers
- Masterclass in CalPoly (April 2014) followed by videoconference + virtual visit of ALICE (part of an outreach year-long programme)
- Masterclass with Dutch students doing a week-long internship at CERN

More (spanish) students doing internships in June 2014
Masterclasses will be part of their programme (+ translation)