

23rd ICTP Summer School on Particle Physics 2023

WELCOME!



since 1991



The Abdus Salam
International Centre
for Theoretical Physics

www.ictp.it



United Nations
Educational, Scientific and
Cultural Organization



IAEA
International Atomic Energy Agency



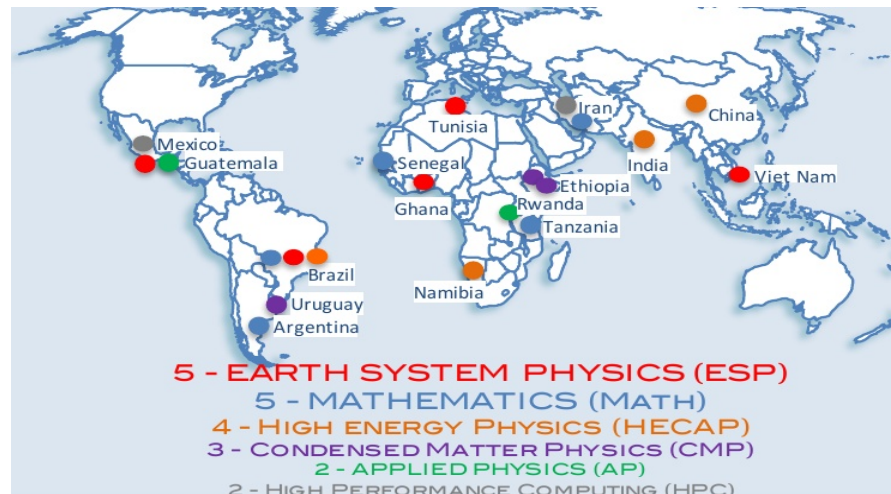
Per Year:

~60 training activities on campus

~20 in developing countries

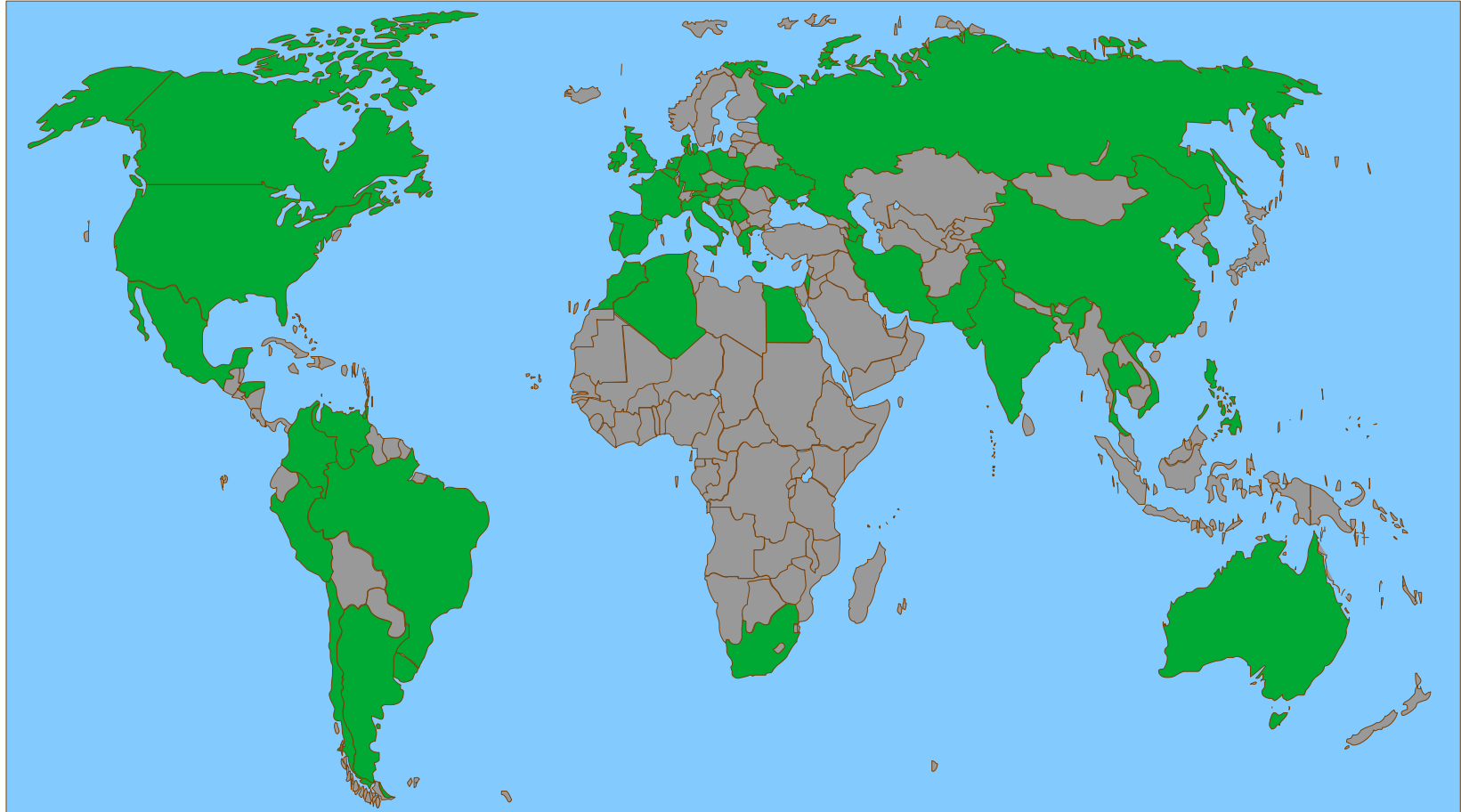
~6000 visitors from ~150 nations

~200 pre-PhD students



ICTP Summer School in Particle Physics 2023

~ **180** students from ~ **50** different countries



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~ **180** students from ~ **50** different countries

Lecturers and topics:

C. CHEUNG (Caltech)

Amplitudes and EFT techniques

T. COHEN (CERN, EPFL, and Oregon U.)

Standard Model

L. COVI, (Göttingen U.)

Dark Matter

R. K. ELLIS (Durham U.)

QCD at Colliders

J. MARCH-RUSSELL (Oxford U.)

Physics of Dark Sectors

M. SIMONOVIC (CERN)

Cosmology

R. SUNDRUM (Maryland U.)

Beyond the Standard Model

Organizers:

Joan Elias-Miró (ICTP)

Peter W. Graham (Stanford U.)

Riccardo Rattazzi (EPFL)

Giovanni Villadoro (ICTP)

Secretary:

Monica Ancuta

Viktoriya Lvova

Adriana Pinto

smr3848@ictp.it

Schedule

	M	T	W	T	F
9.00-10.30	Registration	Ellis	Simonovic	Cohen	Ellis
10.30-11.00	Welcome (10.50)	Coffee	Coffee	Coffee	Coffee
11.00-12.30	Cohen	Simonovic	Cohen	Ellis	Simonovic
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	ICTP Prize	Simonovic	Cohen
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Simonovic	Q&A+		Q&A+	Q&A+
17.30-18.00		students talks		students talks	students talks
19.00-20.30		Reception			

	M	T	W	T	F
9.00-10.30	Covi	Cheung	Sundrum	Covi	March-Russell
10.30-11.00	Coffee	Coffee	Coffee	Coffee	Coffee
11.00-12.30	March-Russell	Sundrum	Covi	March-Russell	Cheung
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Sundrum	Covi	Colloquium	Sundrum	March-Russell
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

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9.00-10.30	Registration	Ellis	Simonovic	Cohen	Ellis
10.30-11.00	Welcome (10.50)	Coffee	Coffee	Coffee	Coffee
11.00-12.30	Cohen	Simonovic	Cohen	Ellis	Simonovic
12.30-14.00	Lunch	Lunch: cafeteria (upstairs)			Lunch
14.00-15.30	Ellis				Cohen
15.30-16.00	Coffee				Coffee
16.00-17.30	Simonovic				Q&A+
17.30-18.00				students talks	
19.00-20.30					

	M	T	W	T	F
9.00-10.30	Covi	Cheung	Sundrum	Covi	March-Russell
10.30-11.00	Coffee	Coffee	Coffee	Coffee	Coffee
11.00-12.30	March-Russell	Sundrum	Covi	March-Russell	Cheung
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Sundrum	Covi	Colloquium	Sundrum	March-Russell
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

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11.00-12.30	Cohen	Simonovic	Cohen	Ellis	Simonovic
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	Simonovic	Ellis	Cohen
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Simonovic	Coffee breaks: terrace (upstairs)			Q&A+
17.30-18.00					students talks
19.00-20.30					
	M				F
9.00-10.30	Covi	Cheung	Sundrum	Covi	March-Russell
10.30-11.00	Coffee	Coffee	Coffee	Coffee	Coffee
11.00-12.30	March-Russell	Sundrum	Covi	March-Russell	Cheung
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Sundrum	Covi	Colloquium	Sundrum	March-Russell
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

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12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	ICTP Prize	Simonovic	Cohen
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Simonovic	Q&A+		Q&A+	Q&A+
17.30-18.00		students talks			
19.00-20.30		Reception			
	M	T			
9.00-10.30	Covi	Cheung			
10.30-11.00	Coffee	Coffee			
11.00-12.30	March-Russell	Sundrum			
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Sundrum	Covi	Colloquium	Sundrum	March-Russell
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

Reception: tomorrow at 7pm
in the **Adriatico terrace**

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11.00-12.30	Cohen	Simonovic	Cohen	Ellis	Simonovic
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	ICTP Prize	Simonovic	Cohen
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Simonovic	Q&A+		Q&A+	Q&A+
17.30-18.00		students talks			
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	M	T	W	T	F
9.00-10.30	Covi	Cheung			
10.30-11.00	Coffee	Coffee			
11.00-12.30	March-Russell	Sundrum			
12.30-14.00	Lunch	Lunch		Lunch	Lunch
14.00-15.30	Sundrum	Covi	Equium	Sundrum	March-Russell
15.30-16.00	Coffee	Coffee	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

Group "PHOTO"
on both **Tuesdays**
at 15.50

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11.00-12.30	Cohen	Simonovic	Cohen	Ellis	Simonovic
12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	ICTP Prize	Simonovic	Cohen
15.30-17.00					Coffee

2022 ICTP Prize Ceremony

Large Scale Structure of the Universe: Beyond the Standard Model of Cosmology



Shant Baghram
Sharif University of Technology, Tehran, Iran

Probing the Primordial Universe Using Heavy Particles

Mohammad Hossein Namjoo
Institute for Research in Fundamental Sciences (IPM), Tehran, Iran

Day
21 June 2023

14:00
Budinich Lecture Hall

R&A+
s talks

Russell
fee
ung
ch
Russell
fee
A+
s talks

Schedule

ICTP COLLOQUIA 2023

Cosmology and Unification

Raman Sundrum
University of Maryland, USA



Day
28 June 2023



14:00
Budinich Lecture Hall



	W	T	F
14.00-15.30	Sundrum	Covi	March-Russell
15.30-16.00	Coffee	Coffee	Coffee
16.00-17.30	Cheung	Q&A+ students talks	Q&A+ students talks

	W	T	F
Simonovic	Cohen	Ellis	
Coffee	Coffee	Coffee	
Cohen	Ellis	Simonovic	
Lunch	Lunch	Lunch	
TP Prize	Simonovic	Cohen	
Coffee	Coffee	Coffee	
	Q&A+ students talks	Q&A+ students talks	

	W	T	F
Sundrum	Covi	March-Russell	
Coffee	Coffee	Coffee	
Covi	March-Russell	Cheung	
Lunch	Lunch	Lunch	
Colloquium	Sundrum	March-Russell	
Coffee	Coffee	Coffee	
	Cheung	Q&A+ students talks	

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12.30-14.00	Lunch	Lunch	Lunch	Lunch	Lunch
14.00-15.30	Ellis	Cohen	ICTP Prize	Simonovic	Cohen
15.30-16.00	Coffee	Coffee	Coffee		
16.00-17.30	Simonovic	Q&A+			
17.30-18.00		students talks			
19.00-20.30		Reception			
	M	T	W	T	F
9.00-10.30	Covi	Cheung	Sundrum		
10.30-11.00	Coffee	Coffee	Coffee		
11.00-12.30	March-Russell	Sundrum			
12.30-14.00	Lunch	Lunch	Lunch		
14.00-15.30	Sundrum	Covi	Collins		
15.30-16.00	Coffee	Coffee	Coffee		
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

Ask Questions!

During Lectures,
During Coffee Breaks,
During Q&A

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14.00-15.30	Sundrum	Covi	Collins		
15.30-16.00	Coffee	Coffee	Coffee		
16.00-17.30	Cheung	Q&A+	Q&A+	Cheung	Q&A+
		students talks	students talks		students talks

Student Talks:

5'' sharp!

upload talk on link sent to you

at least 24h before

Check schedule on webpage

Schedule

check website for updates:

<https://indico.ictp.it/event/10182/overview>

Enjoy!