

## Meet Indian Physicists

### Vikram Sarabhai: Father of the Indian Space Program (1919 - 1971)

Vikram Sarabhai, is one of India's most well known physicist and space scientist. From a young age, Sarabhai had an inclination towards physics and mathematics and hence he decided to pursue science instead of joining his family business. He finished his doctoral studies at Cambridge University in UK in the area of cosmic rays, before returning to independent India in 1947.



Vikram Sarabhai visualised a new field of research opening up in solar and interplanetary Physics. He recognised the power and importance of space technology in a developing country like India and established the Indian Space Research Organisation (ISRO). Sarabhai's interests in space, science and technology intersected with various fields like meteorology, communication, nuclear research, exploration of natural resources etc. He was an institute builder who founded the Physical Research Laboratory, Ahmedabad to promote research in astrophysics and space sciences, and also the well known Indian Institute of Management, Ahmedabad.

Vikram Sarabhai is remembered for his work nationally and internationally. To honour his contributions to science, the International Astronomical Union named a crater in the moon (in the Sea of Serenity) after him.

Image Source: Wikimedia Commons/ Public Domain



# Reflections

## IPhO 2015 NEWSLETTER

### Reflecting on IPhO 2015

As the Olympiad draws to a close, it is time to reflect on the experiences of the past week. Our hosts have shown us amazing hospitality, with opportunities to sample some of the rich and varied culture of India, its history and natural beauty. We have seen an experimental question exploring the connections between physics and biology, and a theoretical paper drawing inspiration from the light of the sun and man-made nuclear reactors. The IPhO is a competition, searching for the best, and the winners can be rightly proud of their efforts.

Most importantly, however, has been the coming together of more than 380 young people who are enthusiastic about physics from over 80 countries. Meeting their peers from around the world will encourage them to continue physics, and to work with others around the globe. On behalf of the IPhO community, I give many thanks to our Indian friends for putting on such a successful and well-organised event.

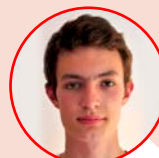


Matthew Verdon  
Secretary IPhO

\* HAPPY \*  
\* BIRTHDAY \*



Akihiro Watanabe  
Japan



Blaz Karner  
Slovenia

### DID YOU KNOW?

The famous *Dabbawalas* (literally meaning one who carries a lunch-box), a group of 5,000 delivery men in Mumbai, are one of the most efficient non-computerised lunch delivering organisation in the world. The Harvard Business School Review has given them a 'six sigma' rating, which means that *Dabbawalas* make less than one error in a million transactions! Ironically, a Bollywood movie titled "*Lunchbox*" was recently released worldwide, whose story is based on the consequences of an error made by the *Dabbawalas*!



Image Source: Joe-Zachs/ Wikimedia

### THINK THINK

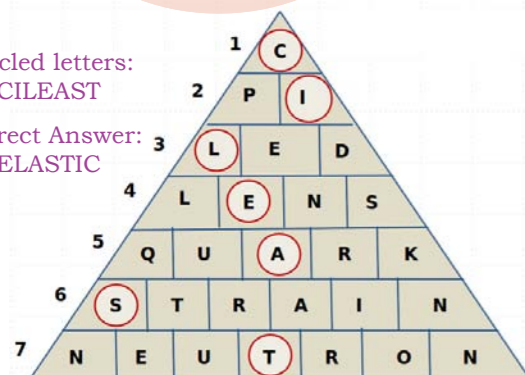
You have 8 balls, 7 of which are identical but the 8th is slightly heavier than the rest. You also have a balance-scale (with a platform on either side) but it has no markings on it. Using the scale only twice, locate the ball that is heavier.



Courtesy: Gray's Brain Teasers and Riddles - <http://256.com/gray/teasers/>

Circled letters:  
CILEAST

Correct Answer:  
ELASTIC



WORD PYRAMID SOLUTION

"Imagination is more important than knowledge"

Albert Einstein

Editorial Team: Sugra Chunawala, Pooja Sharma, Disha Gupta,  
Devashree Prabhu, Manoj Nair and Adithi Muralidhar

### Glimpses



### Weather Forecast

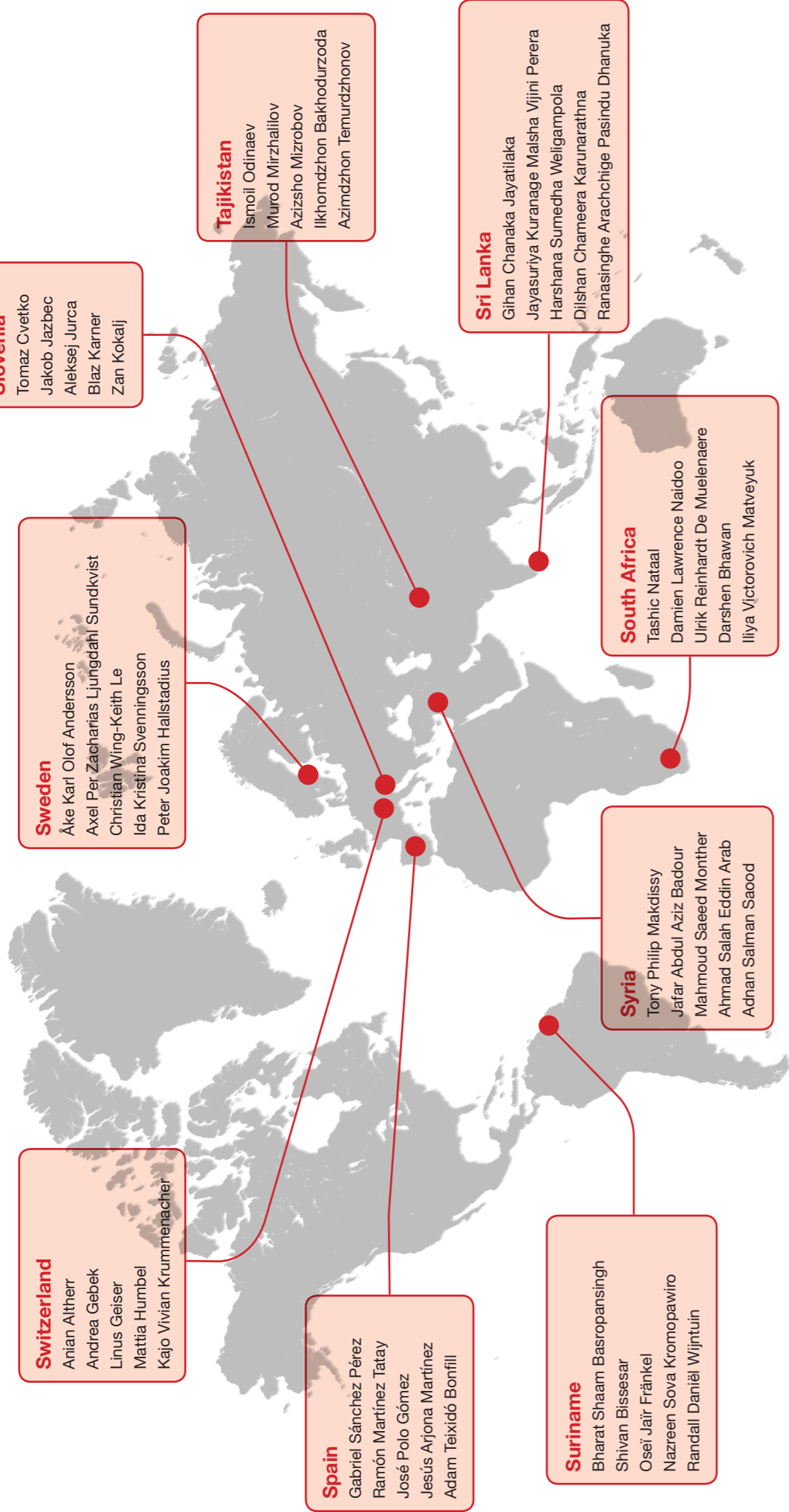
Temperature  
Max: 31°C / 87.8°F  
Min: 27°C / 80.6°F

A few spells of rain could occur  
Source: Regional Meteorological Centre, Mumbai

### Today@IPhO

Closing Ceremony at IIT Bombay, 1000 hrs

## Rendezvous with IPHO participants



## YOU SPEAK!

The factory visit was boring!

**Tony Philip Makdissy**

Syria

The factory was a very spacious facility and we were warmly received, we felt special. The entire visit was systematic and orderly. It was definitely worth the long drive!

**Ching Yin Lui**

Hong Kong

Mahindra visit was really good, they use new technology and have original designs. They also pay attention to ecology and try to cover a wide range of markets.

**Khalymbek Yelshibekov**

Republic of Kazakhstan

Assembly line workshop was really cool. XUV's which is the monster of cars was kept on display there!

**Hans Daniel Kaimre**

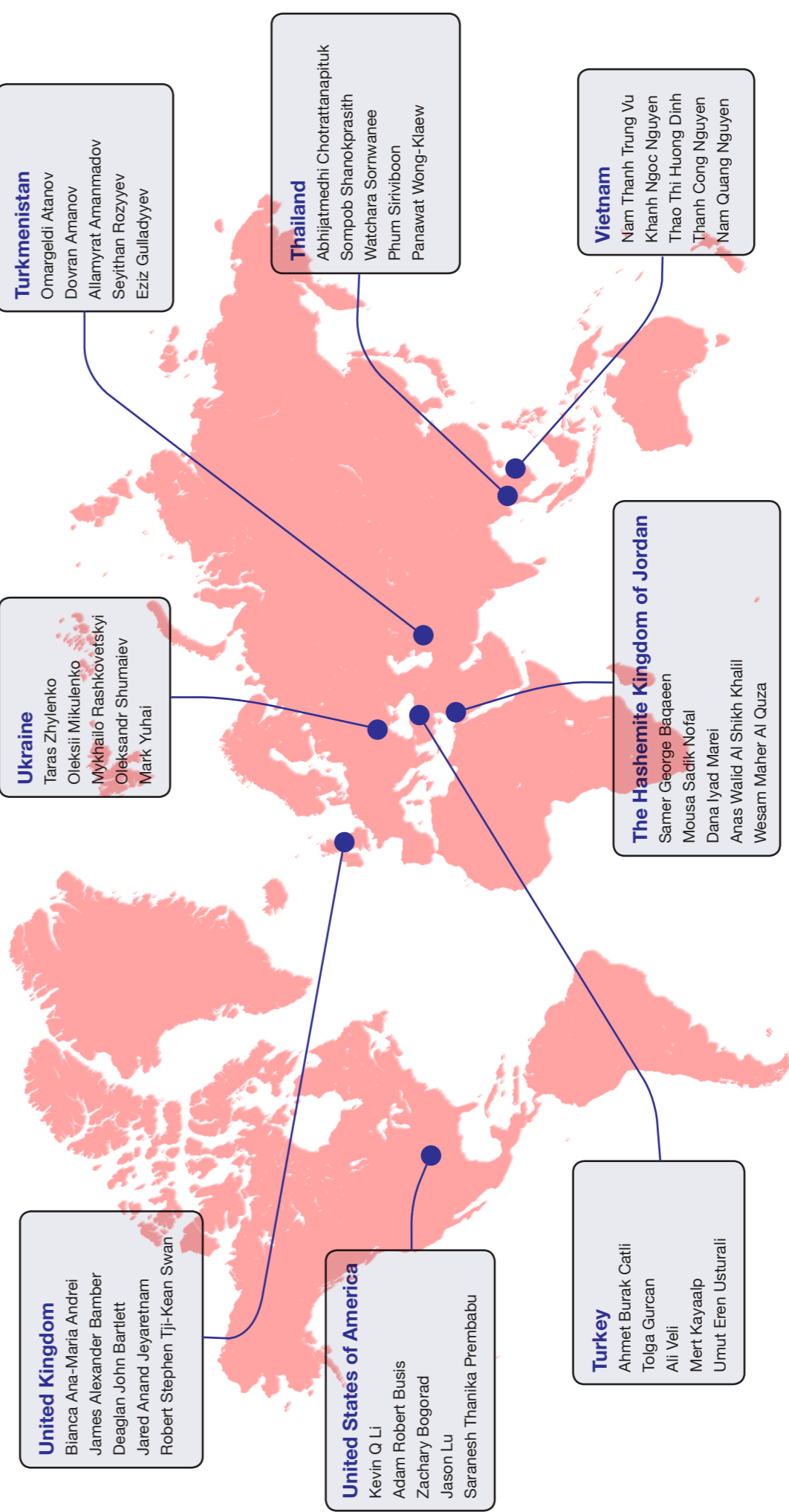
Estonia

The machine assembling part was really impressive, it was much more bigger than the car factory I had visited in Turkey.

**Jan Krzysztof Marucha**

Poland

## Rendezvous with IPHO participants



## YOU SPEAK!

I would like to cherish this moment where everyone tries to talk to others and make friends.

**Alicia Alejandra Cortez**

El Salvador

The whole stay was very fantastic. The event was very well organised. I liked the food a lot. I liked the Kanheri caves, and the view from there was scenic and vast.

**Fayez Ahmed Jahangir Masud**

Bangladesh (Leader)

The whole stay was very warm. This was the biggest IPHO ever hosted by any nation. I liked the experimental problems and the apparatus was very sophisticated. I liked the discussions but they could have been shorter. I also liked that the excursions arranged were related to Nature.

**Vidar Agustsson**

Iceland (Leader)

Mumbai is really hot. I had a hard time to adapt to the weather. I had fun at Imagic. At IPHO, its fun meeting new people. If group sizes are small during excursion, then it would have been better. Today, the factory visit was good but the bus journey was too long!

**Ahmet Burak Catli**

Turkey