

# DAILY NEWS



news from the 24<sup>th</sup> International Olympiad in Informatics

## Message from Ms Irina Bokova



Director-General of UNESCO on the occasion of the 24th

International Olympiad in Informatics (IOI) Sirmione, Italy

I am pleased to convey best wishes to the 24th International Olympiad in Informatics (IOI), which is being held at Sirmione, Italy. This Olympiad is close to UNESCO's heart. It was during UNESCO's 24th General Conference that the idea to organize the International Olympiad was first proposed. In May 1989, UNESCO initiated and sponsored the first edition in Pravetz, Bulgaria, open to young women and men from all Member States.

It is a great pleasure to see the International Olympiad in Informatics has become one of the world's largest competitions of its kind.

The Olympiad brings high value to all involved. It helps young men and women to excel in academia. It creates healthy conditions for competition, creativity, learning and exchange. For UNESCO, young people are not a single group, but diverse and constantly evolving. Young women and men are the leaders of tomorrow but they are also key actors today, whose energy, motivation and vision are essential assets for positive social change and for the creation of knowledge societies. Mobilising the power of all young people is vital for inclusive and sustainable development, for reducing poverty and accelerating growth.

The 24th International Olympiad in Informatics is important for all of these reasons.

This is a moment for creativity and competition, for laying the foundations for inclusive knowledge societies, together. I wish the very best to all participants.

Irina Bukova



## calendar

Monday 24

H	CONTESTANTS	LEADERS	VISITORS
06:00 - 07:00	Breakfast		
07:00 - 08:00	Breakfast		
08:00 - 09:00	Transfer to Montichiari		
09:00 - 10:00	Transfer to Montichiari		
10:00 - 11:00	Opening Ceremony		
11:00 - 12:00	Opening Ceremony		
12:00 - 13:00	Lunch		
13:00 - 14:00	Lunch		
14:00 - 15:00	Pratice Session	Pratice Session	Visit to the castle
15:00 - 16:00		Meeting	
16:00 - 17:00	Transfer to Montichiari		
17:00 - 18:00	Transfer to Montichiari		
18:00 - 19:00	Free Time		
19:00 - 20:00	Dinner	Dinner	Dinner
20:00 - 21:00	Dinner	Dinner	Dinner
21:00 - 22:00	Quarantine	Meeting and translations	Free Time
22:00 - 23:00		Meeting and translations	
23:00 - 00:00		Meeting and translations	



# Arrivals

**86 delegations, 320 students, 87 visitors, 82 delegation leaders, 77 deputy leaders and 11 observers: this is 'the big family' of IOI 2012.**

Different cultures with one thing in common: the love for informatics and mathematics. The competitors are brilliant high school students, no older than 20 years of age, chosen after a very selective and demanding process. Even though each country has different selection criteria, students

are required to be top of their class with outstanding abilities that set them apart. During the weekend teams started arriving at Garda Village - some after a 20-hour flight! Whether first or second time participants, they're here not only for the competition but also to enjoy the experience of taking part. The first team to arrive was Korea, followed by Indonesia, Thailand and Malaysia. The Malaysian group arrived at Malpensa late Saturday evening but managed to keep up their good mood

and excitement. They told us of their team's goals and expectations. [\(video\)](#) Delegations from Thailand and South Korea who arrived earlier ventured into Sirmione for a bit of sightseeing. The relaxing afternoon trip definitely served to lift their spirits prior to the games. [\(video\)](#) We are still waiting for some members to arrive. Let's hope they get here soon so that they can visit beautiful Italian cities, relax beside the lake and get to know other informatics lovers.

# Montichiari

the competition venue

Montichiari is a town near Brescia and it has about 24000 inhabitants. This town was probably built by the Romans, and it was destroyed twice by the Goths in 382 and by the Huns in 477. Subsequently the town was conquered by the Lombards. During the Middle Ages, it was under the Longhi family, and then, after lots of conflicts, it became part of the Republic of Venice, from 1426 to 1797. The town is divided into 3 main districts: Borgosotto, the most ancient one, City, the modern zone, and Allende. The most interesting buildings are the Cathedral and other churches, in particular S. Pancrazio, the Bonoris Castle and Monti, Mazzucchelli and Pilati Palaces. In the last decade, there has been an increase in the population and in the size of the town. This has brought extensive development to the economy.



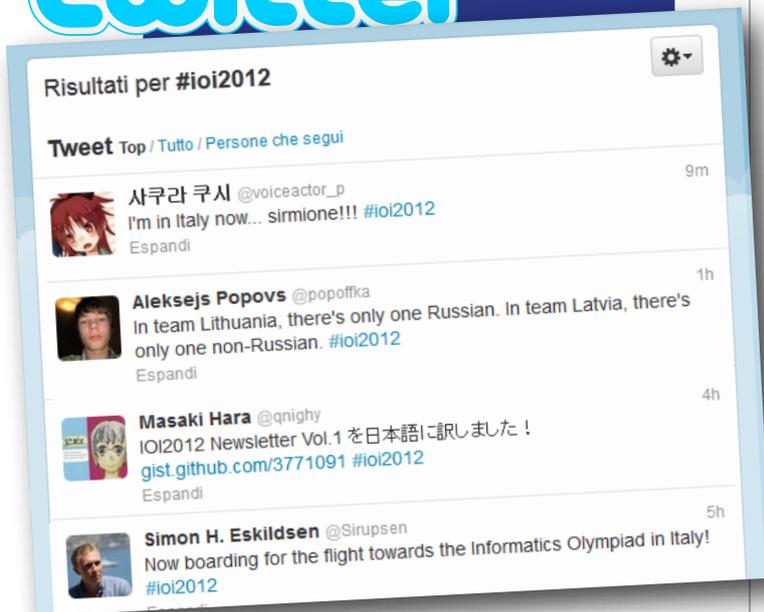


byte

## Giacomo Leopardi

The most certain way to hide from others the limits of our knowledge is not to go beyond them.

## twitter social



snack

## Risotto con i porcini

- rice
- broth
- onion
- olive oil
- dry white wine
- Porcino mushrooms
- Grated Parmesan cheese
- butter

Risotto is a first course dish made with Italian Carnaroli or Vialone rice, broth and white wine. Before serving, grated Parmesan cheese and butter are added to give it a creamy consistency and full-bodied taste. Porcino is a wild mushroom that grows in humid coniferous forests especially in northern regions of Italy.



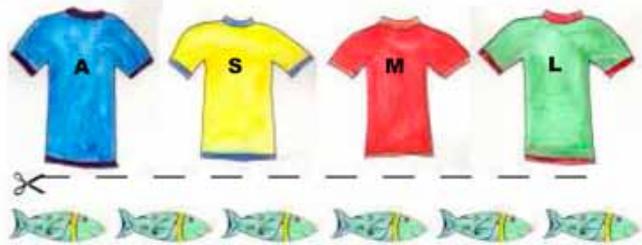
for the  
**Live streaming**  
of the opening ceremony at 10:00 am

# games

1

## April fool!

It's April fool's day (1st April); Anna, Sara, Massimo and Lisa stick fish on each other's back. At the end of the game they have attached 6 fish. They each see their companions' back but not their own. This is what they say:  
 Anna: "I managed to stick fish on all the other children".  
 Sara: "I can see a total of 4 fish on my friends' backs".  
 Massimo: "None of my friends has the same number of fish".  
 Lisa: "Massimo has the most fish".  
**Identify how many fish each child has on their back.**



2

## Come on, run away

It is a dark and moonless night. Juliet, Rob, Tony and Sophie are being chased by dangerous bandits. In order to escape they have to cross a precipice on a footbridge which is in a very bad state. It can hold the weight of two persons only. A light is absolutely needed to cross. The four friends have only got one lantern which will go out in half an hour.  
 Juliet is quick; she can cross the footbridge in one minute. Rob needs two minutes to do that. Tony is slow: ten minutes will be necessary. Sophie is even slower: she will need twenty minutes.  
 If two friends cross together, they will move according to the pace of the slowest.  
 The four of them managed to cross in less than thirty minutes.  
**Explain their strategy.**

### Game solution issue 1

**Sticky cubes**  
 There remain 83 small cubes in the structure

**Construction of cubes**  
 The first cube positioned has 5 free faces. When the second cube is attached the free faces become 4+4. If the next cube is on the board the free faces are 4+3+4, then 4+3+3+4, 4+3x+4, that is 3x+8=30 which is impossible.  
 If on the latest cube another one is attached we have 5+3x+4=30, that is x=7 with a total of 9 cubes. If on the latest one others are attached we have 4+3x+4y=5=30 giving x=3 and y=3 for a total of 8 cubes.

### IOI 2012 on the web

- Website - [www.ioi2012.org](http://www.ioi2012.org)
- Newsletter - [www.ioi2012.org/newsletter](http://www.ioi2012.org/newsletter)
- Facebook - [www.facebook.com/loi2012Italy](http://www.facebook.com/loi2012Italy)
- Youtube - [www.youtube.com/user/loi2012media](http://www.youtube.com/user/loi2012media)
- Twitter - <https://twitter.com/IOI2012>; official hashtag: #ioi2012

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# happy birthday



**24 September**  
 Daniel Goldbach (Australia)  
 Aminu Folawiyo (Nigeria)