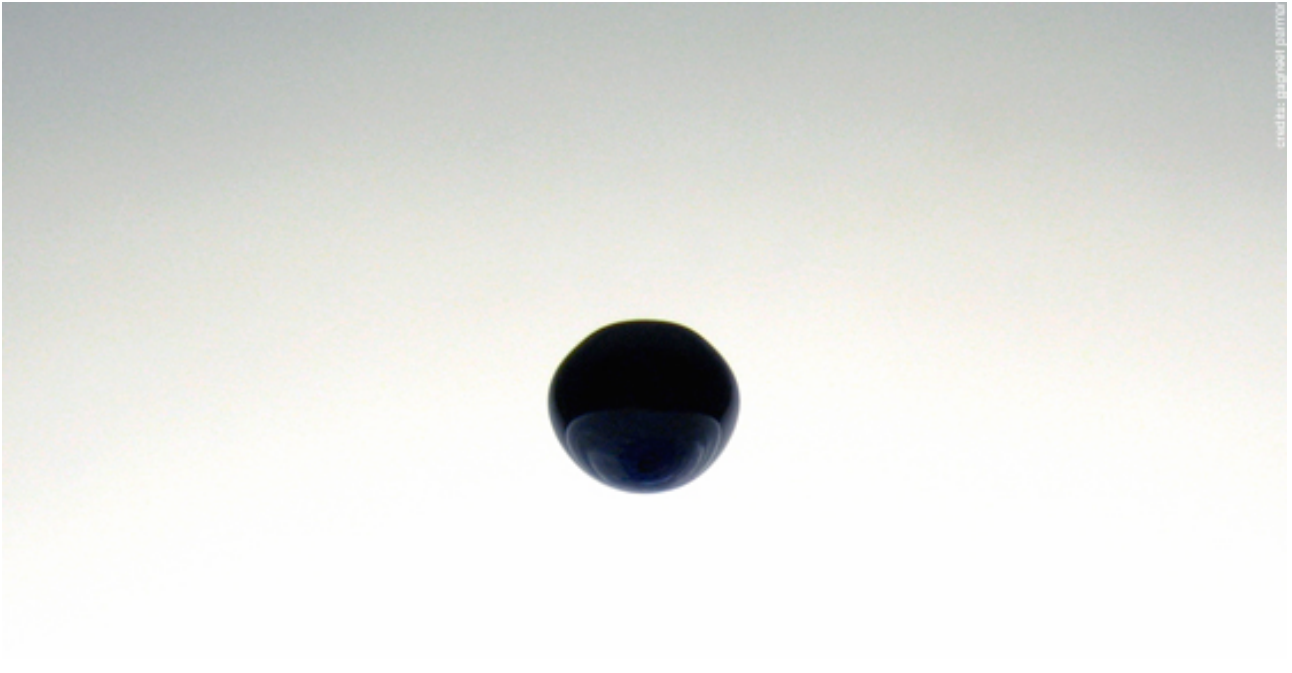


## Viewpoints on the point



### Mathematicians, physicists and historians to discuss the concept of point at SISSA

11 November 2013

A point may sound like a trivial matter and yet it is a key concept in science and one that has engaged not only mathematicians – who have tried to define it since the early days of this science – but also philosophers, physicists, and theologians. Researchers from different disciplines will be meeting at SISSA next weekend to discuss this “elusive” topic.

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In mathematics, a point is an object without dimension, the fundamental entity which underlies everything. The definition of point has given rise to heated debates ever since the beginning of the history of **mathematics**. Euclid considered the point to be a basic, undefinable concept, even though his view was subsequently challenged. Not only mathematicians, however, were interested in the point: major **philosophers** like Zeno, Aristotle and Leibniz addressed the concept. The point has played a central role in **physics** as well: an unquestioned “basic” concept until the 19<sup>th</sup> century, it was then replaced by the notion of field and is put to the test today by experts in quantum mechanics and string theory.

All this will be the subject of a three-day workshop “**Ideas of point**”, which aims to shed light on

“an elusive concept in mathematics and physics throughout history”. The workshop will be held at the International School of Advanced Studies (SISSA) of Trieste from November 14 to 16.

“During these days devoted to the point we will bring together here at the SISSA international experts from very diverse fields,” explains Ugo Bruzzo, one of the organizers. “The workshop will provide an opportunity for a multidisciplinary exchange of views, an event which we hope will be fruitful and give rise to new and original views on the subject”.

“In reality, the goal is to stimulate a 360° reflection on the notion of space, seen in an unusual manner”, comments Claudio Bartocci, from the University of Genoa, another organizer of the conference. “We’ll be looking at how the notion of point has changed in the course of the centuries, by bringing together researchers who would otherwise not have the opportunity to exchange views”.

Participants include scientists of the standing of **Yuri Manin** of the Max Planck Institute for Mathematics in Bonn, one of the greatest living mathematicians, or **Eberhard Knobloch**, historian of science of the Technical University of Berlin. Among the physicists, there will be **Sergio Doplicher**, of the University “La Sapienza” of Rome, and **Carlo Rovelli** of the Centre of Theoretical Physics of Luminy.

In addition to Bruzzo and Bartocci, other organizers of the workshop (“for experts in the field”) are Boris Dubrovin, from SISSA, Giulio Giorello, from the University of Milan and Monica Ugaglia, from the University of Udine.

#### IMAGE:

- Credits: gagneet parmar - <http://bit.ly/Hf7qde>

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