

Trieste

Trieste is a charming Italian city in the North-East part of the country, near the boundary with Slovenia, facing the Adriatic sea. It is a unique melting pot, where the Italian, Austro-Hungarian and Balkan cultures have coexisted for centuries, notwithstanding the dramatic events of the XX century. It is renowned in Italy for the very high quality of life among Italian cities, with a rich cultural life (http://www.turismoavg.it/en-US/top_events_trieste.html).

The natural environment is enchanting, and the city is deeply interlaced with the “Carso”, with its characteristic karst phenomena, and with spectacular coastline on the Adriatic sea.



Biking, sailing and trekking are quite popular. Every year, over two thousands boats participate in one of the largest sailing race in the world, the “Barcolana”.



Enrol!

Applicants are selected through a written and oral examination. The written tests of the past years are available on the sector’s page www.sissa.it/mp/admission.

Non EU applicants are given the possibility of an early selection on the basis of publications and academic qualifications.

Applications must be submitted online, and completed subsequently by fax; the deadline for 2011-2012 is **August 30, 2011**.

General informations about applications (including announcements and requirements) as well as the online form can be found at

<http://www.sissa.it/applications>



Mathematical Physics & Geometry at SISSA

Join us for postgraduate training and a cutting-edge research experience at SISSA, the International School for Advanced Studies in Trieste! Here you will experience the atmosphere of a large international scientific community.



Visit our webpage for more info, and to know about many possibilities for young researchers (including pre-doc, post-doc,...)

<http://www.sissa.it/mp/>

PhD Curricula

Our Mathematical Physics Sector runs two PhD curricula: Mathematical Physics and Geometry. Courses are given both by permanent staff and invited lecturers, selected among leading international experts.

Students are offered full financial support and travel money to attend workshops and schools, so to establish international contacts and collaborations.



Our intensive training programme is concentrated in the first year, so as to give students the opportunity of developing independent research of the highest academic standard, during the full four programme. Lectures are given in English. There are no teaching duties for the PhD students. Instead, they are invited to participate in the Sector's seminar activity, both to present their research and to organise reading seminars.

Research



The Sector's research activity takes place both in mathematical physics and geometry. The interests of the researchers in the Sector focus on classical and quantum integrable systems and their applications, algebraic and differential geometry, the geometry of strings and quantum field theory, mathematical methods of quantum physics, and noncommutative geometry.

The Sector's activity embodies one of the most exciting and new trends of mathematical and theoretical physics and geometry in the last 20 years: the deep interplay between ideas and techniques coming from these different disciplines. On the one hand, the various branches of geometry provide techniques that can be applied to the construction of mathematical models of the physical world. On the other hand, the physical theories are the source of new and groundbreaking ideas that are of-

The Campus

ten assimilated into mainstream research in geometry. The Mathematical Physics Sector of SISSA provides a young and stimulating environment for those who want to know this fascinating world where geometry and physics intertwine and where one is at the service of the other.

2010 was a special year for SISSA: this young and dynamic institution is constantly growing and, for the second time in its life, had to move to a new larger location, the Santorio building. This huge building now hosts all the Sectors of SISSA in one place.



The long standing connection with our former neighbour, the Abdus Salam International Centre for Theoretical Physics (ICTP), is now ensured by a minibus running every two hours between the two institutions.