8 PhD positions at GSS

This is to announce the opening for 8 PhD Fellowships in "Mathematics in Natural, Social and Life Sciences" at Gran Sasso Science Institute (GSSI) starting in October 2020 - deadline for application: June 11, 2020, info: https://applications.gssi.it/phd/

The 8 PhD fellowships including "4 years - € 16.159,91 gross yearly - free accommodation - free luncheon vouchers and canteen",
are awarded in the area of Mathematics of GSSI (https://www.gssi.it/people/professors/lectures-maths).
Among them 2 fellowships are given within the GrowBot FET - EU project, under the direction of Professor Pierangelo Marcati. https://growbot.eu/
Interested candidates can apply to both programs by submitting two different applications.
Students and researchers in Mathematics at GSSI are encouraged to interact with other scientific communities.

At GSSI, we believe that the interdisciplinary endeavor is the most effective way to do science and benefit society. Mathematical models are ubiquitous in physics, engineering, information theory, social and life sciences, as they provide a formidable framework to describe the time evolution of deterministic, stochastic and complex systems, which is one of the main goals at GSSI.

Within the PhD program in Mathematics in Natural, Social and Life Sciences a priority has been established on mathematical modeling, both towards the traditional areas of application, such as Physics or Engineering, and towards emerging issues in Biology and in the Social Sciences.

GSSI mathematics researchers are interested in tackling many problems with complementary perspectives and methods. The area of Mathematics is characterized by four large macro-sectors: Applied Partial Differential Equations, Stochastic Analysis, Numerical methods and Continuum Mechanics modeling. Within these sectors there is a shared interest in problems related to fluid dynamics, quantum mechanics, statistical mechanics and also its applications to data science. Important ideas of classical analysis, probability theory, mathematical physics and theoretical physics are used also for less traditional applications. Numerical linear algebra and

numerical optimization help to design new models and accompanying numerical algorithms for applications in data mining, machine learning and network science. Continuum mechanics models, computational methods in fluid dynamics are used not only in their traditional field at the boundary between applied mathematics and theoretical engineering, but also in nonconventional problems like modeling the full heart function.