



PRESS RELEASE

Ex SISSA student Laura Foini awarded by the European Physical Society



The researcher wins the Statistical and Nonlinear Physics Prize to early career scientists

27 July 2017

Her work tools are paper, pen and a whiteboard to use «when she needs to share ideas with others, discuss problems and look for solutions». Computers? «Yes, sometimes». Laura Foini fills everything with formulas and calculations – what is needed to study «systems out of equilibrium, my research sector, encompassed by the environment of statistical physics». It is a field in which this young researcher, born in 1984 in Brescia province, excels. Her merits have recently been recognized by the Statistical and Nonlinear Physics Prize, awarded by the European Physical Society (EPS) to young scholars who have distinguished themselves in the quality of their published work and the value of their contribution to the scientific field. The award is the crowning achievement in an already ultra-prestigious career which has seen Laura Foini training and working at the top ranked Italian and international institutions.



Undergraduate degree from the well-known Ghislieri college in Pavia. Then a PhD at Trieste's SISSA completed in just three years. Then the École normale supérieure in Paris, followed by the University of Geneva and then once again the École normale, your current address. This prize, shared with Edgar Roldan of Dresden's Max-Planck Institute, caps a brief but already important career. Was this announcement a surprise to you?

It was unexpected but cherished. Rather than an achievement, I see it as an impulse to do better, to continue a journey which is packed with surprises, stimuli, new things to discover, understand and solve.

It sounds fun...

It is. I'm never bored. I'm inquisitive and ask myself many questions. And understanding something, however small, gives me great satisfaction.

Yours is a fascinating sector but certainly not a simple one. What made you choose it?

It combines the beauty of mathematics with that of nature. It is certainly an abstract world but also a highly rational one. It gives us the tools for an overall approach to problems. From the starting point of the microscopic constituents of a system we can deduce its macroscopic properties: if we know the speed of the particles in a gas we can establish its temperature, for example. My research takes place mainly on the theoretical level but this research sector has many applications: biology, IT, economics.

The low numbers of female scientists in the hard sciences is often spoken of...

It's true, there are very few but when I look around, I see that things might be improving.

Why the low numbers?

I think the problem begins early. The starting point is the assumption that boys are destined to study one thing and girls another.

There is also a career potential problem.

Definitely. But in my sector, as I was saying, it is also a number problem. When I was studying, the proportion of girls was already small. A lot of work needs to be done to face this issue. In any event, it is difficult for everyone, both men and women. The research world is a wonderful one. You travel a lot and meet extraordinarily interesting people but it's competitive. Employment guarantees are a long time in coming. Constancy and determination are required.

How do you see your future?

I'd like to continue to do what I'm doing, as a researcher, and plan on starting a family. And perhaps set off on new travels.

The best trip you've done?

Discovering Sicily because of its exceptionally beautiful landscape and incredible history and culture combined. And Peru for its breath-taking nature and because it made me feel at home despite being in a different world.



The EPS-SNPD Prize

The Statistical and Nonlinear Physics Division (SNPD) Prize awarded by the European Physical Society (EPS) involves two different awards. The first, the **EPS Statistical and Nonlinear Physics Prize, is awarded to** outstanding scientists and this year it was won by **Peter Grassberger** from Forschungszentrum Juelich, Germany, and **Itamar Procaccia** of the Weizmann Institute of Science in Rehovot, Israel, "for their fundamental contribution to non-linear physics". The second prize is awarded to young researchers who completed their PhDs no more than six years ago and have distinguished themselves by the quality of their work. The 2017 **EPS-SNPD Early Career Prize** was awarded to **Laura Foini** of École normale supérieure Paris and **Edgar Roldan** of the Max-Planck-Institute for the Physics of Complex Systems in Dresden for their important contribution to statistical physics and stochastic thermodynamics. The purpose of the EPS's Statistical and Nonlinear Physics Division is to further research in statistical and nonlinear physics and promote interdisciplinary research. The president of the assessment board is Christian Beck of Queen Mary College, University of London. The awards ceremony will be held in Krakow at the SNPD conference from 4th to 8th September 2017.

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More information on the EPS-SNPD Prize: <https://goo.gl/FqKSf2>

CONTACTS:

Nico Pitrelli

pitrelli@sissa.it

Tel. +39 0403787462 Cell. +39 339 1337950

Chiara Saviane

saviane@sissa.it

Tel. +39 0403787230 Cell. +39 3337675962



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