

Object : Séphora Berrebi Foundation¹'s application for the Minerva Informatics Equality Award.

Dear Committee Members,

It's a great honor to apply for the Minerva Informatics Equality Award for the *Séphora Berrebi Scholarships for Women in Computer Sciences*.

Please find below my contact information, the URL of our dedicated website and a brief summary and, on the following pages:

- A brief summary;
- A two-page description of the initiative;
- An analysis of its impact;
- Letters of support from laureates.

Of course, our submission can be considered as a runner up and be included as an exemplar of best practice in future Informatics Europe publications but winning the award would be such an invaluable help, a visibility accelerator and amplifier, a real financial support and a strong encouragement to perpetuate this initiative which is so important to us.

I am at your disposal for any additional information you may need and thank you very much for the attention you will give to our proposal.

Yours sincerely,

Emmanuelle Berrebi

President

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Summary

Thanks to an annual award, the Séphora Berrebi Scholarships for Women in Computer Science brings recognition and visibility to two female researchers in the informatics field where women are under-represented. Beyond the selection of the winners by a prestigious jury and a 2000€ prize to incentivize them to pursue their work at the best levels whatever the obstacles are, the objective is to put light on role models associated with excellence. The expected impact? Encouraging high school girls to embrace computer science studies and female students to enrol and stay in ambitious programmes, and consider careers in research.

¹ According to the french law, it is an "association d'intérêt général à but non lucrative".



The Séphora Berrebi Foundation

The Séphora Berrebi Foundation was created in 2017, in memory of our daughter. Its purpose is deliberately broad (education and culture, science and innovation, research, health and well-being of patients, culture) to best reflect Séphora's eclectic personality, eager for science and humanities. Since its creation, our initiatives have mainly focused on two areas, education and support for sick children. Their deployment was carried out through (i) the "Séphora Berrebi Scholarships" department promoting women in sciences, (ii) educational projects based on solidarity such as "SkooLab" (bridging the digital and S.T.E.M. divide via high tech activities), "sKOLa" (distant tutoring) and "Koolcademy" (academic support for young people from disadvantaged backgrounds or with learning difficulties) projects and (iii) the "Mieux vivre Moi aussi" pole supporting sick children, adolescents and young adults. The common point? Facilitate learning regardless of the socio-cultural obstacles to allow everyone to reach their level of excellence. It is of course a nice tribute to Séphora who fiercely fought the cognitive impairments inflicted on her wounded brain. In February 2014, she could no longer read, write, walk and count. Despite the anticipations of doctors, treatments, 8 brain operations and various resulting disabilities, she managed to continue for three years her scientific studies thanks to an extraordinary appetite to learn.

The purpose of the Séphora Berrebi Scholarships

The Séphora Berrebi Scholarships for Women in Advanced Sciences is a painful personal story transcended by a cause that goes beyond it: fighting against gender inequality in scientific research, particularly in the Informatics and Mathematics fields where they are most underrepresented. The objective of the award is to encourage female students to enrol and persevere in both Informatics / Computer Science and Mathematics in learning and research programmes by:

- Bringing recognition and visibility to female researchers thanks to a selection by a
 prestigious jury, thus encouraging them to pursue their research efforts beyond the
 doctorate or post-doctorate, whatever the difficulties encountered.
- Creating role models to encourage high school girls to embrace scientific studies, female students to be ambitious by choosing to enrol in selective programmes, to stay there and to consider careers in research and female researchers to seek to rise to the best levels.
- Evidencing and showing that the well-known barriers motherhood, financing, stereotypes and insidious discrimination – likely to act as disincentives for female students from both enrolling in science programs and choosing research careers can be overcome.

In a few words

- The prize is awarded to young women researchers, postgraduates or post-doctoral students: they can be Israeli or French, or of all nationalities provided they are enrolled in a doctoral school, a research laboratory or a research institute in France or Israel and already benefit from the main financing.
- In total, four female researchers receive each year a grant of € 2,000: one per discipline and one per country of research or nationality (in order to avoid any potential bias linked to the country).
- The winners are selected by a prestigious jury following a rigorous and independent process. The criteria are the excellence of the applicants' theoretical and practical knowledge, of their academic path and of their research project, both in terms of



- achievements and potential, and their ability to promote effectively their research work orally and in writing, both for a public of experts and for neophytes.
- An event is organized to give impactful visibility to the award ceremony. The first two events took place at Institut Henri Poincaré Institute and University of Tel Aviv in the presence of the Ambassador of France, in duplex. The third ceremony, scheduled for March 25, 2020 at Institut Henri Poincaré, Salons Hoche and Residence of the Ambassador at Tel Aviv, had to be canceled due to the health crisis: we hope to honor the winners of the third and fourth editions in a reception in September 2021.
- The use of the awarded amount is intended to facilitate and strengthen the laureates' research work and encourage them to maintain scientific momentum. It can finance travel abroad (to give lectures, establish cooperations, participate in congresses, meet experts, publicize her work or stay temporarily in another establishment abroad) or contribute to expenses which optimize their research work (personal computer, childcare costs, etc.). It may finance expenditures linked to a disability or long-term illness² which are not reimbursed by social security, a supplementary amount of 500€ may be granted.

About the process

- The applicants should make their submission online on our dedicated website. Their
 a application file should include a research summary (max 4 pages), an abstract
 intended for a large public (max 400 words), a motivation letter (max 650 words) and
 a CV. The letters of recommendation supporting the applicant are asked separately.
- Before the jury meeting, the Chairwoman/Chairman of each jury ensures that all candidatures are seriously reviewed: for each candidate, at least two reports are drawn up by two members. On the basis of the reports, a classification is established by each member of the jury upstream of the committee (from "to be rejected" to "very exceptional") then shared with other members. The objective is to make sure that a substantial and adversarial debate can be held during the committee.

Fostering Computer Science and Informatics

- Computer Science refers here to all fields unanimously classified as such (eg. programming languages) and in Informatics but also others which are or can be classified differently (for example, signal processing), especially in engineering: Big Data, bio-informatics, cognitive algorithms / artificial intelligence, computer vision, cryptology, cybersecurity, databases, data science, imaging technology, machine learning, programming languages, signal processing, software engineering, theoretical computer science, theory of information systems.
- Over the past three editions, recognized personalities got involved by participating in the jury: Serge Abiteboul (INRIA, ENS), Hagit Attiya (Technion Israel Institute of Technology, Dijkstra Paper Prize in Distributed Computing, 2011), Gilles Dowek (ENS, INRIA), Judith Gal-Ezer (Open University of Israel), Antoine Joux (UPMC, Gödel Prize, 2013), Jean-Bernard Lasserre (John von Neumann Theory Prize, 2015), Xavier Leroy (Collège de France), Claire Mathieu, Hagit Messer-Yaron (IEEE, Tel Aviv University), Michel Morvan (CosMo Company, CEO), David Peleg (Weizmann Institute, Prix Dijkstra, 2008) Alexis Tsoukiàs (CNRS, Université Paris-Dauphine), Amiram Yehudai (The Blavatnik School of Computer Sciences). Their commitment is an invaluable asset which gives the prize all its value added.

² The excellence of the application is evaluated by the jury regardless of these possible difficulties



Séphora Berrebi Scholarship Women in Advanced Mathematics & Computer Science

Positive impact on the winners

• One measurable is the financial support provided: 13 500€

The 7 recipients³ were:

2016-2017, France Li Liu

2016-2017, Israel Daphna Rothschild Bup

2016-2017, Israel Talya Eden

2017-2018, France Jelena Mladenovic

2017-2018, Israel Gali Noti 2018-2019, France Sreeja Nair 2018-2019, Israel Brit Youngmann

Other achievements can be measured

100% of the laureates continued their careers in research.

100% of the laureates obtained their PhD no later than 18 months after the announcement. 100% of the laureates published an article in 2021.

57% of the laureates obtained a position in a prestigious institution (Shenzhen, Stanford, MIT, Harvard).

To our knowledge, at least two of the laureates have had children since their selection.

• The pride of having won

Inclusion in their curriculum that they are a recipient of the Séphora Berrebi Scholarship testifies that laureates perceived the prize as enhancement⁴.

Publications resulting from research done the corresponding year usually mention an acknowledgment and gratefulness for our support.

Positive impact beyond the winners

Thesis directors

Communication on the call for applications indirectly fosters supervisory of female doctoral students.

Other PhD female students

Communication on the call for applications and on the related event encourages all female doctoral students: for the fourth edition, more than 300 emails were sent directly to female PhD students. Among the many encouraging messages and testimonials, it is interesting to note that some unsuccessful candidates saw the experience as inspiring.

³ In the first edition, for Israel, no candidate was selected by the Mathematics jury. The Computer Science jury having congratulated itself on the excellence of the candidates' level, it was decided to award a second prize of € 1,500 (Talya Eden).

⁴ For examples: https://imladeno.net/index.php/publications/
https://jmladeno.net/index.php/publications/
https://jml



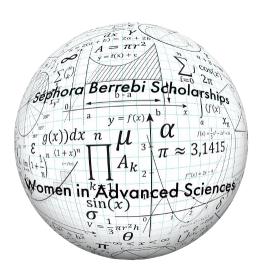
Institutions

The nomination of a laureate indirectly values the gender equality efforts of their laboratories and thus contributes to a positive dynamic.

High school girls and female students

In order to multiply the impact of the Séphora Berrebi Scholarships and encourage as well high school girls and female student, about 120 of them are invited to the event organized in Paris⁵. On the occasion of the second edition, nearly one hundred high school girls took part to a dedicated Master Class in Paris; some were selected for their motivation after a spontaneous application, others were chosen by their school to attend the event. Four of them asked questions to the women researchers of the round table. All participated to speed meeting workshops in small groups animated by 13 female researcher. They were "captivated, impressed by these exceptional passionate and exciting women"⁶. In some high schools, the event sparked reflection on the subject⁷. In addition, the laureates commit to carry out actions to sensitize young girls and young women to scientific stakes and challenges.





⁵ This was not possible for the third edition due to covid.

⁶ According to the testimony of a teacher accompanying them.

⁷ https://lyceehenaff.fr/Remise-des-bourses-de-l-association-Sephora-Berrebi





From Jelena Mladenovic, 2018 laureate