

# Annual Report 2019

## Introduction

In 2019 we focused on outreach. In addition to outreach activities we had started in 2018 (such as the photo exhibition), in this year, we started sponsoring girls participating in the national, Benelux, and European Girls mathematics Olympiads; we organised outreach days and contributed to outreach activities of the International Mathematical Union. Last, having determined the theme of 2020 to be on visibility, we started a collaboration with the Nieuw Archief voor Wiskunde to showcase research of women mathematicians in the country.

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### *NMC session*

The NMC was held in Veldhoven on April 23-24. Unlike the previous year, EWM-NL was granted a parallel session where we invited 4 panellists that contributed to talks at the event itself. The session was less well attended in comparison to 2018 due to the different parallel activities. About 30 participants attended, which allowed for a more informal style of communication and discussions. Olfa Jaibi hosted the session, preceded by a short presentation by Maria Vlasiou about the goals and activities of EWM-NL in 2018 and 2019. The attendees as well as the participants in the panel discussion found the session to be a fruitful encounter with fellow mathematicians.

### *Photo exhibition at Maastricht University*

The exhibition Women of Mathematics throughout Europe was hosted by Maastricht University, on loan by EWM-NL. The exhibition, which has been travelling the world since 2016, portrays thirteen female mathematicians working at various European research institutions. The project explores their experiences, their drive and their love for mathematics. The extended exhibition shown in Maastricht featured two extra portraits of some of UM's women in mathematics. In addition, artist Jules Sinsel installed a custom-made, math-inspired 3D art object for the occasion.

### *Photo exhibition at Radboud University*

The exhibit "Women in Mathematics, a Gallery of Portraits" was displayed at Radboud University in Nijmegen, for about four weeks. The opening took place on May 24th, 2019, during the Diversity Day organised at the Faculty of Science.

### *Photo exhibition at Leiden University*

The exhibit "Women in Mathematics, a Gallery of Portraits" was displayed at the international bi-annual conference *Equadiff* in the Hooglandse Kerk, one of the monuments of the city. The conference gathered more than 550 mathematicians from around the world. The portraits were exposed during the whole week and praised by the organisation as well as the participants.

### *Workshop*

In May, we hosted a workshop on Persuasion and Influencing. The trainer was from Centalis. The location was CWI who sponsored the use of their room and the drinks. The 10 participants were spread over all levels of seniority and mainly from CWI.

### *Annual event*

The annual event took place on November 27 at CWI in Amsterdam. This year's theme was "understanding and fixing the leaky pipeline", a metaphor for the lack of women at senior levels of academia. The program started with an overview of EWM-NL's activities by Maria Vlasiou, followed by the first main speaker: Dr. Erin Hengel from the University of Liverpool. She talked about her research on gender bias in publishing. Our second main speaker was Prof.dr. Gunter Cornelissen, former head of the department of mathematics in Utrecht. He spoke about concrete measures one can take to fix the leaky pipeline, to create a more diverse organisation. Dr. Barbara van der Berg from the University of Utrecht gave a short presentation on a project they just started to find out why less girls than boys choose to study maths.

Following the talks, there was a panel discussion led by Sophie Huiberts. The annual event was visited by ca. 30-40 persons.

### *Mentor programme*

Some changes in the mentor program have been implemented in 2019. First, all mentors in the existing pool were asked to re-confirm their interest in mentoring (all but one did), and new mentors were recruited via the monthly EWM-NL newsletters, resulting in two new volunteers for our mentor pool. When someone registers as a mentee, the new process is as follows. An anonymised mail with the details and requests of the mentee is sent to all available mentors in the pool, asking for volunteers. If more than one of them is willing to mentor this person, the mentee is presented their profiles and can make a choice, after which the mentee and mentor are put in contact with each other. Two new mentor-mentee pairs are formed in 2019.

### *European Girls Mathematics Olympiad 2020*

In 2020 the Netherlands will be hosting the European Girls Mathematical Olympiad (EGMO) in Egmond aan Zee. The EGMO was founded in 2012 and is a competition similar to the International Mathematical Olympiad. More than fifty countries send their best female high school students to test their problem-solving skills. Two consecutive mornings these students get to tackle three hard problems each. The goal of the EGMO is to decrease the gender gap in mathematics competitions by giving more female students the opportunity to participate on an international level and meet other talented girls.

EWM will support and collaborate with EGMO2020 in various forms:

- we will showcase the Exhibit "Women in Mathematics, a Gallery of Portraits" at the EGMO location during the duration of the event.
- we will award the first Dutch girl in the final ranking a two-week trip to a mathematical institute in the country, including a guardian.
- some of our board members and affiliated members will help on the field serving as coordinators/translators.

### *Sponsoring Benelux Olympiad*

The 11th Benelux Mathematical Olympiad was held in Valkenswaard in April 2019. After communication with the local organisers of the Olympiad, EWM-NL supported the event by sponsoring a small prize for the best 2 girls of the competition. The prize comprised a book about solving mathematical problems by Terence Tao, a personal message, and EWM-NL memorabilia. This year's winners of the EWM-NL prizes were Marie Peeters (BEL) with an impressive score of 26/28 points and a gold medal. The second prize was awarded to Angelina Kysil (LUX) with a bronze medal and 9/28 points, including a perfect score in one assignment. More details about their performance can be found here: <http://www.bxmo.nl/problems-results/index.html>.

### *Sponsoring national mathematics Olympiad*

This year, EWM-NL also supported the Dutch national mathematics Olympiad by sponsoring a small prize for the best girl of each class. The award ceremony took place in November. The prize comprised a book on mathematics chosen by the winner, a personal message, and EWM-NL memorabilia. This year's winners of the EWM-NL prizes were the Anke de Haan from Deventer (4<sup>th</sup> class), Samantha Li from Eindhoven (5<sup>th</sup> class) and Lisa van Barneveld (6<sup>th</sup> class).

### *Campaign of women in STEM*

In January, EWM-NL was approached by the MEDIAPLANET PUBLISHING HOUSE B.V. with the request to support and contribute in the campaign "Women in STEM" that they wished to launch at the end of March. EWM-NL responded to the call and gathered material from its members. About 20 members

contributed. The publisher let us know early in March that they postponed their campaign. EWM-NL asked for new permissions from the contributors to use their material in our own social media and newsletter.

#### *Contacts with CWM*

EWM-NL and CWM have coordinated their activities with respect to keeping their members informed about international activities. The newsletter of EWM-NL is also linked at the IMU's Committee for Women in Mathematics, and CWM news are regularly distributed among our own members through our newsletter.

#### *Number of women in mathematics*

EWM-NL asked the mathematics departments and institutes to share voluntarily their personnel numbers categorised by rank and gender. From the 12 organisations asked, seven provided the information requested, two refused to do so, and four gave no answer. The aggregated data from those seven departments are as follows:

Aggregated	Number women	Number men	Fte women	Fte men	% number women	% fte women
PhD candidates	58	191	20.68	74.7	0.232932	0.216817
Postdocs	21	53	7.01	18	0.283784	0.280288
Ass. Prof. (including TT)	26	86	13	41.71	0.232143	0.237617
Assoc. Prof.	7	68	3.8	28	0.093333	0.119497
Prof. (including bijzondere, NOP, etc)	11	80	5.21	40.57	0.120879	0.113805

123      478      49.7      202.98

% women in all ranks

**0.204659**

**0.196691**

Note: fte numbers include only 4 departments that provided this information

### *Women in the spotlight*

The Nieuw Archief voor Wiskunde has agreed to host a new column about women in mathematics, curated by Clara Stegehuis and Francesca Arici. The format will consist of a brief portrait of a woman mathematician active in the country, followed by a more technical article about her research direction.

### *New board members*

In January 2019, Rianne de Heide joined the executive board. In April 2019, Anna Kruseman and Wioletta Ruszel left the board, and Francesca Arici (re)joined the board. At the end of 2019, the board consisted of Maria Vlasiou, Olfa Jaïbi, Francesca Arici, and Rianne de Heide.

### *Finances*

An overview of the expenses in 2019 is as follows.

<b>Expense</b>	<b>Realisation</b>
Board meetings	357.53
EWM memberships	60
Annual meeting	1210.8
EWM grants for career development	669.68
Workshop	925.15
Sponsoring Mathematics Olympiads	230.12
Promotional material	69.01
<b>Total</b>	<b>3522.29</b>

### *Grants*

Continuing the grant scheme initiated in 2018, we have awarded two grants to the following applicants:

- Julia Komjathy (TU/E) for covering the flight costs of her two children, in order to allow her and her husband to give talks in the Stochastics Seminar at the University of Bristol and to the Probability Seminar at the University of Bath.
- Francesca Arici (LU) for the design costs of a website for a the newly established network Women In Operator Theory and Operator Algebras, Benelux.