Interviewing women mathematicians

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Konstanz Women in Mathematics University of Konstanz

Opening

Universität Konstanz	



A Gallery of Portraits Opening of the exhibition

Thursday, 19 October, 15:30 Uni-Library, Level B4, in front of the BibCafé



The exhibition will be hosted in the Library until 16 November 2017. - math.uni-konstanz.de/ExhibitWomenInMaths



1) presentation and history of the project

2) about the interviews

3) the touring and initiatives triggered by the exhibition

Presentation and history



- photo portraits and interviews of 13 women mathematicians
- first shown in 2016, designed as a touring exhibition

Presentation and history



- photo portraits and interviews of 13 women mathematicians
- first shown in 2016, designed as a touring exhibition
- realised by 5 mathematicians (Sylvie Paycha, Alexandra Antoniouk, Magdalena Georgescu and myself) and 1 photographer (Noel Matoff)

Born from a rib of the KWM project...

What is the KWIM project? Who is behind KWIM? KWIM: past, present and future

KWIM in the past years (2013-2015)

Talks in the KWIM Lecture series

- Cythia Vinzant University of Michigan, USA 11.06. 2013
- Madeleine Golding University of Cambridge, UK 10.07.2013
- Madeleine Bieg University of Konstanz, 5.11.2013
- Maria Infusino University of Reading, UK 13.11.2013
- Sylvie Paycha University of Potsdam, Germany 5.12.2013
- Angela Stevens Universität Münster, Germany 16.01.2014
- Carla Cederbaum Universität Tübingen, Germany 20.01.2014
- Sabine Burgdorf EPFL, Lausanne, Switzerland 25.02.2014
- Marie-Francoise Roy IRMAR, University of Rennes, France 11.03.2014
- Victoria Powers Emory University, Atlanta, USA 14.4.2014
- Sudesh K. Khanduja IISER, Mohali, India 30.04.2014
- Irada Dzhalladova Kyiv National Economic University, Ukraine 07.05.2014
- Francesca Acquistapace University of Pisa, Italy 13.05.2014
- Evelyne Hubert INRIA Mediterranee, France 28.05.2014
- Danielle Gondard Universite Paris VI, France 18.06.2014
- Nadja Hempel University of Lyon 1, France 2.07.2014
- Anwesha Chaudhury Rutgers University, USA 09.07.2014
- Simone Göttlich University of Mannheim, Germany 13.11.2014
- Wulf-Dieter Geyer Universität Erlangen-Nürnberg, Germany 20.11.2014
- Sigrid Böge Ruprecht-Karls-Universität Heidelberg, Germany 9.12.2014
- Ira Neitzel Technische Universität München, Germany 10.02.2015
- Sibylla Priess Technische Universität München, Germany 11.02.2015
- Samaria Montenegro Universite Paris Diderot, France 22.04.2015
- Francoise Point FNRS-FRS, Universite de Mons, Belgium 06.05.2015:
- Sara Grundel Max Planck Institute, Magdeburg, Germany 20.05.2015:
- Paola D'Aquino Seconda Universita' degli Studi di Napoli, Italy 30.06.2015
- Beatrice Pelloni University of Reading, UK 17.11.2015
- Elina Robeva UC Berkeley, USA 01.12.2015
- Karin Halupczok Universität Münster, Germany 08.12. 2015

= male speaker

talk about equality issues or

women experiences in academia

Born from a rib of the KWM project...

 2013: Sylvie Paycha is invited to give a talk at KWM
she reports on dialogues with 10 women mathematicians



Sylvie Paycha (Professor, University of Potsdam)

 booklet "Portraits of women mathematicians around the world"



From the talk to the idea of an exhibit

The talk meets a genuine interest from various audiences...

- "scientific trajectories" and lives
- report of experiences stimulate discussion
- thoughts about condition of women in different countries



 \Rightarrow develop it into a short movie?

The idea of an exhibition

Noel Matoff is a professional photographer interested in social themes



http://www.matoff.de

Noel Tovia Matoff



Planning the exhibition

focusing on the European panorama, we would like

- > interviews of a group of women mathematicians
- > portrait images
- > make a touring possible



Subjectivity

> focus on the woman mathematician as a person, the point of view of the subject that creates maths

> subjective choices in the realisation of the exhibition

> criterion is having diversity of people and stories in order represent different countries, different career stages. Excellence is not a driving thread.



Searching for fundings

an ambitious (and expensive) project:

- requires more than one single department for equal oppurtunity can possibly afford
- not fully scientific
- hybrid project: social science, art and biographies

The Humboldt prize

A decisive step:

- the cooperation of Alexandra Antoniouk

– Alexandra wins the *Humboldt Alumni Award 2015 for Innovative Networking Initiatives* for the touring exhibition project



Alexandra Antoniouk (National Academy of Science, Ukraine)



Humboldt foundation

Bosch foundation

London Mathematical Society

Berlin Mathematical School

Potsdam University

Maecenia foundation for women in science and art

The ritual of interviews and portraits



Frances Kirwan Oxford, June 2015

Portraited and interviewed

Nalini Anantharaman (France) Karin Baur (Switzerland and Austria) Stefka Bouyuklieva (Bulgaria) Alice Fialowski (Hungary) Irina Kmit (Ukraine and Germany) Frances Kirwan (UK) Kaisa Matomäki (Finnland) Margarida Mendes Lopes (Portugal) Barbara Nelli (Italy) Dusanka Perisic (Serbia) Katarzyna Rejzner (Poland and UK) Katrin Wendland (Germany)

The ritual of interviews and portraits



Nalini Anantharaman, Potsdam, January 2015

at the EWM meeting in Cortona



Margarida Mendes Lopes, Cortona (Italy), August 2015

The ritual of interviews and portraits

- informal talking at the blackboard
- interviews
- photo portraits



Katarzyna Rejzner, Cortona, August 2015

The eye of a photographer



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The full team

Magdalena Georgescu joins our team
editing the interviews (catalogue)

– choice of the excerpts for the panels with the help of the interviewd mathematicians



Magdalena Georgescu (postdoc in Ben-Gurion University)

> Ammar Alsaedy and Pascale Castro-Belloc also join the team

Opening in Berlin



Library of the Institute of Mathematics, TU University Berlin, July 20th 2016

Interviews:

1. How and when did you choose to do mathematics?

2. Were you then encouraged by your family, friends or other people around you?

3. Did you come across obstacles in pursuing your career as a mathematician?

4. In retrospect, are you happy to have chosen mathematics or do you have some regrets? What are for you the joys of mathematics? What are for you the hardships of mathematics?

5. What would you recommend a young woman in your country wanting to start a career in mathematics?

6. Could you describe your research field to a lay person

7. Can you describe your favourite personal achievement in mathematics?

Themes in the interviews:

The importance of talking to people and mentoring programs



Katrin Wendland

EWM Meeting, Cortona 2015

What would you recommend to a young woman in your country wanting to start a career in mathematics?

A young woman who has just finished school I would advise to give it a try, and be honest with herself as to whether she enjoys mathematics or not. I would recommend that she be patient, and to keep on trying when an obstacle comes in the way. If doubts emerge later on in her career, such as thinking that she is not "good enough", I would ask her why and tell her to trust her own abilities. Such doubts often arise from a mere lack

of self-confidence. It is a good thing to be self-critical, but you should not put yourself down! I personally proceeded step by step, not allowing myself to plan too far ahead. This said, if this young woman does not "burn for mathematics," then it might not be the right choice for her. It is important to love the subject, because one should expect to come across difficulties. In any case, I would recommend that she saks for advice from her peers and her seniors, maybe in the form of mentoring, and that she shares the problems she might encounter with people she trusts. There are lots of mentoring programs, but talking to people is a first and very useful step.



Themes in the interviews:

The importance of talking to people and mentoring programs

– be aware at each stages of the mechnisms that can influence women's participation: self-censureship, lack of self confidence

- talking and asking help to student advisers can help overcome difficulties



Karin Baur EWM Meeting, Cortona 2015



Themes in the interviews: Diversity of scientific trajectories

- opening new paths
- determination in finding solutions to make family and work compatible



Margarida Mendes Lopes EWM Meeting, Cortona 2015



The touring: a box to be filled with new ideas

After the first two stations (2016) ...

Berlin, Opening, Mathematics Library of the TU, Berlin

Potsdam, Library of the Uni Potsdam

... the exhibition became autonomous!

Several institutes hosted it. Each station combined it with its own project

- shown during conferences
- used to advertise equal opportunity initiatives
- at training days for secondary school teachers
- combined with high school activities

Venues

2016

Russe, Bulgaria Bonn, Germany Strasbourg, France Paris, France Rome, Italy 2017 Clermont-Ferrand, France Mainz, Germany Bielefeld, Germany Edinburgh, UK Marseille, France London, UK Leicester, UK Amiens, France Burgas, Bulgaria Konstanz, Germany Stuttgart, Germany Utrecht, Netherlands Strasbourg (Kléber), France Perpignan, France Durham, UK Cambridge, UK Vratsa, Bulgaria Trondheim, Norway York, UK Oxford, UK Marseille, France Durham, UK Leeds, UK

Salzburg, Austria Zurich, Switzerland Kazanlak, Bulgaria Graz, Austria Kiev, Ukraine Paris II, France Havana, Cuba Melbourne, Australia Bogotà, Colombia Magdeburg, Germany

2018

Santiago, Chili Padua, Italy

....



Concluding remarks

There is still a lack of diversity in the maths communities. It is important to convey and keep in mind these messages:

– be aware of the mechanisms that influence women's participation

– encourage mentoring and any action that can help reinforce the self confidence

- excellence can be an obstacle to inclusion
- stereotypes should be fought against by counterstereotypes, which need to be advertised

Thank you!

References

– Sylvie Paycha, Introduction of the catalogue "Women of mathematics throughout Europe. A gallery of portraits", Verlag am Fluss (Berlin 2016).

– Sylvie Paycha, "Penser les différences en compagnie des mathématiciennes européennes", Opening of Perpignan's exhibition (France 2017)

– Moira Chas, "Diversity in Maths", Talk given at the conference "Topology Ecuador", 2017

- Terence Tao "Does one have to be a genius to do maths", blog post https://terrytao.wordpress.com/career-advice/ does-one-have-to-be-a-genius-to-do-maths/

- Jo Handelsman and Natasha Sakraney, "Implicit bias", www.whitehouse.gov/ sites/default/files/microsites/ostp/bias_9-14-15_final.pdf 2015