

# Several Female Support Activities Later – What have we learned?

Meetup Women@Security&Privacy, June 1 2022

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# Rechtliche Grundlagen für Frauenförderung an den Unis im UG 2002 ...

- **§ 19.** (1) Jede Universität erlässt durch Verordnung (Satzung) die erforderlichen Ordnungsvorschriften im Rahmen der Gesetze und Verordnungen selbst. (...)
  - 6. Frauenförderungsplan und Gleichstellungsplan (§ 20b);
  - 7. Einrichtung einer Organisationseinheit zur Koordination der Aufgaben der Gleichstellung, der Frauenförderung sowie der Geschlechterforschung;

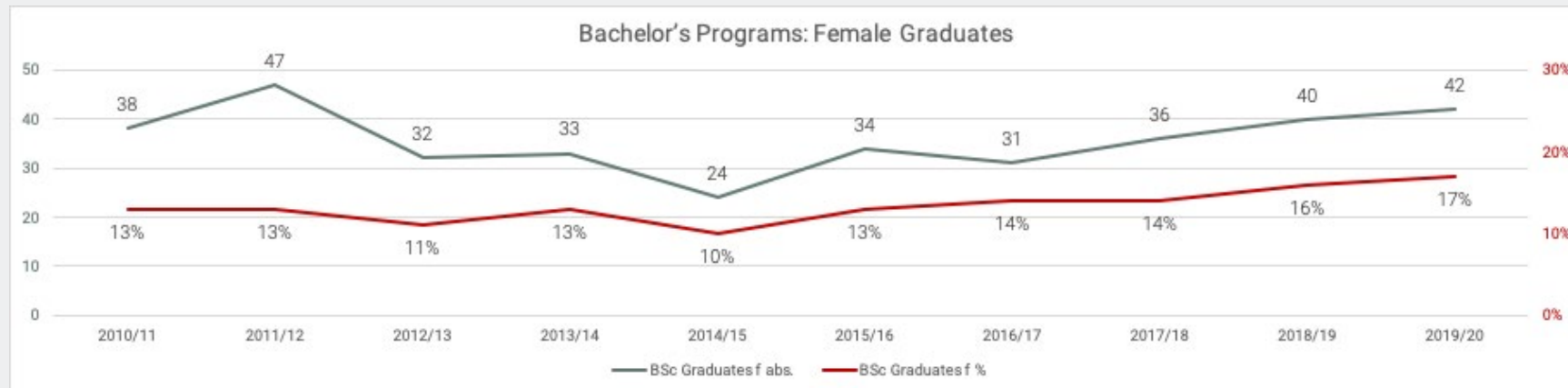
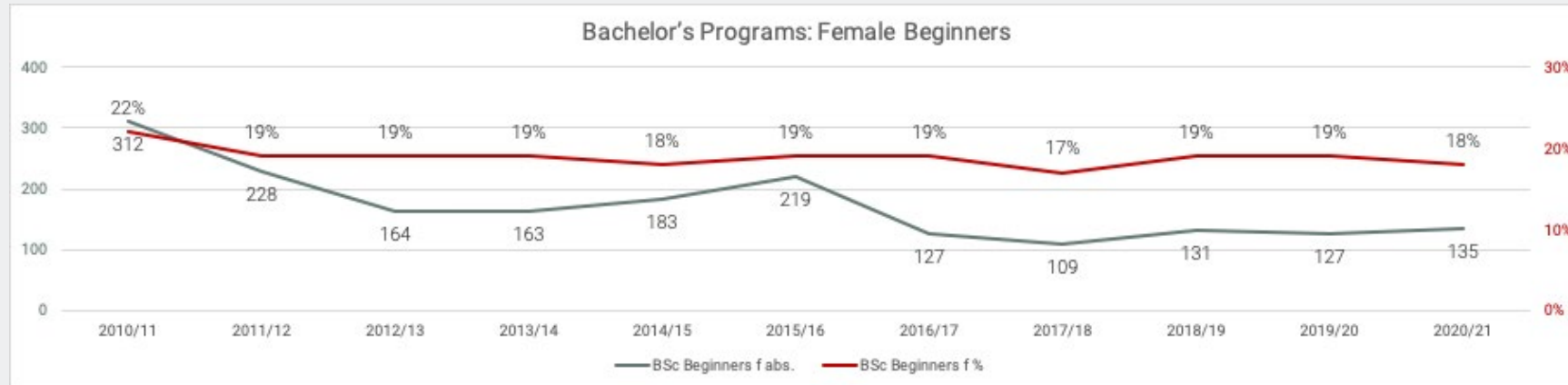
....

- **§ 41.** Frauenfördergebot
- **§ 42.** Arbeitskreis für Gleichbehandlungsfragen
- **§ 43.** Schiedskommission
- **§ 44.** Anwendung des Bundes-Gleichbehandlungsgesetzes

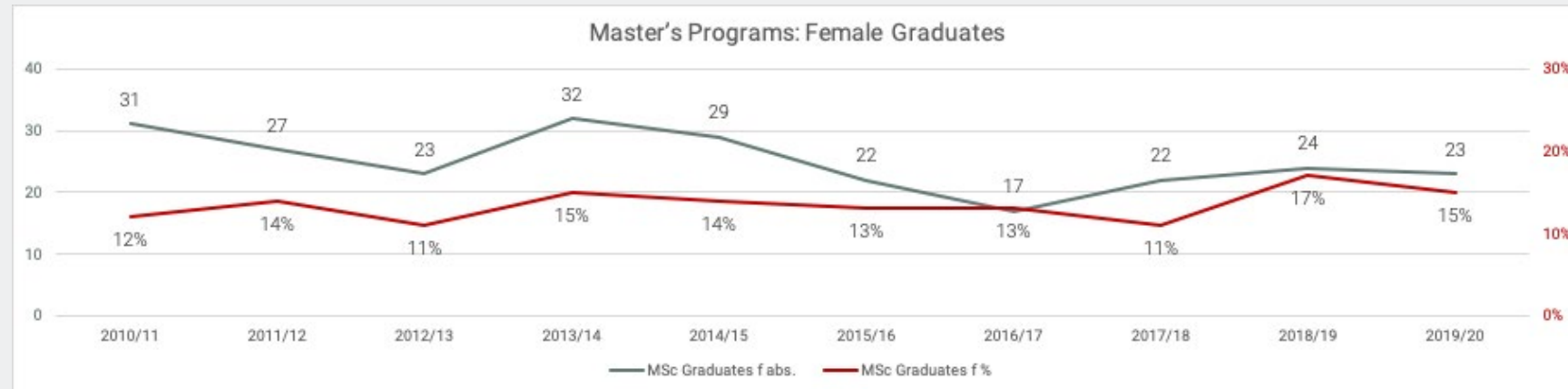
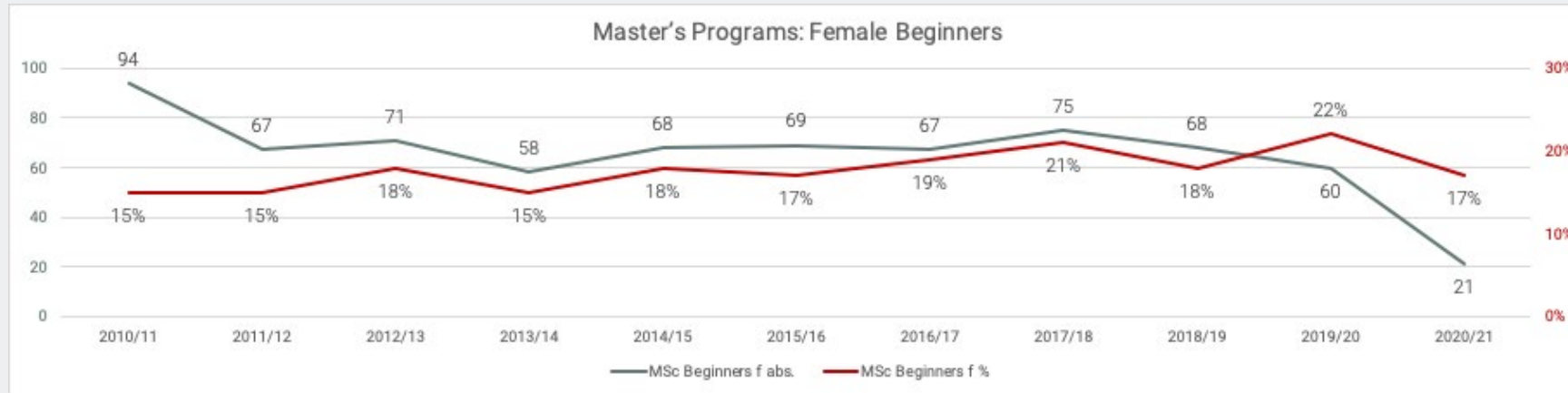
# Umsetzung...

- Frauenförderungsplan der TU Wien
- Teil G. Einrichtungen zur Frauenförderung und Gleichbehandlung
  - § 44 Der AKG und sein Büro
  - § 45 Abteilung Genderkompetenz
  - § 46 Vernetzung
- Strategiekonzept zur Frauenförderung an der Fakultät für Informatik
  - vom 31.1.2016
  - <https://informatics.tuwien.ac.at/women-in-informatics>

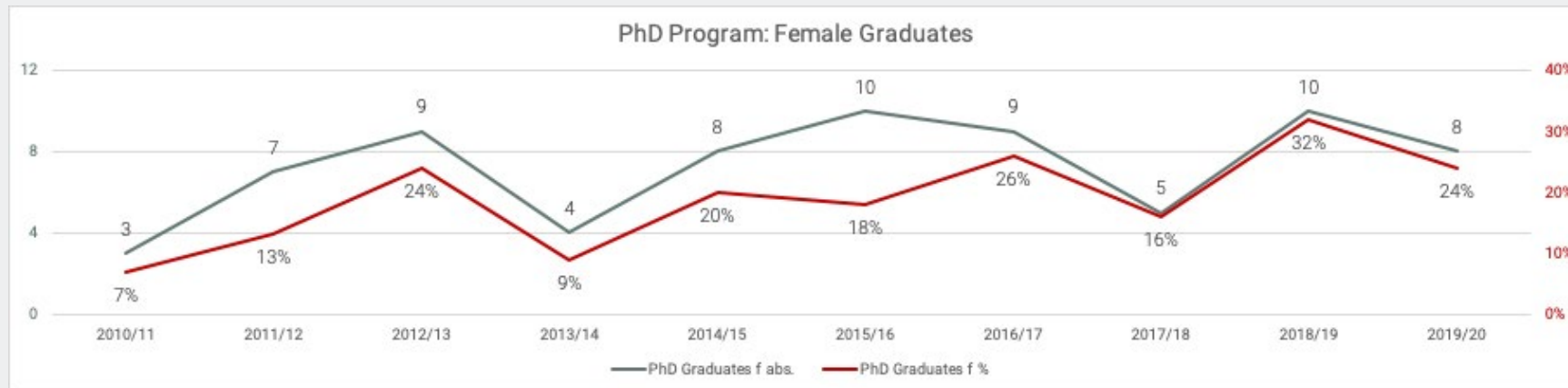
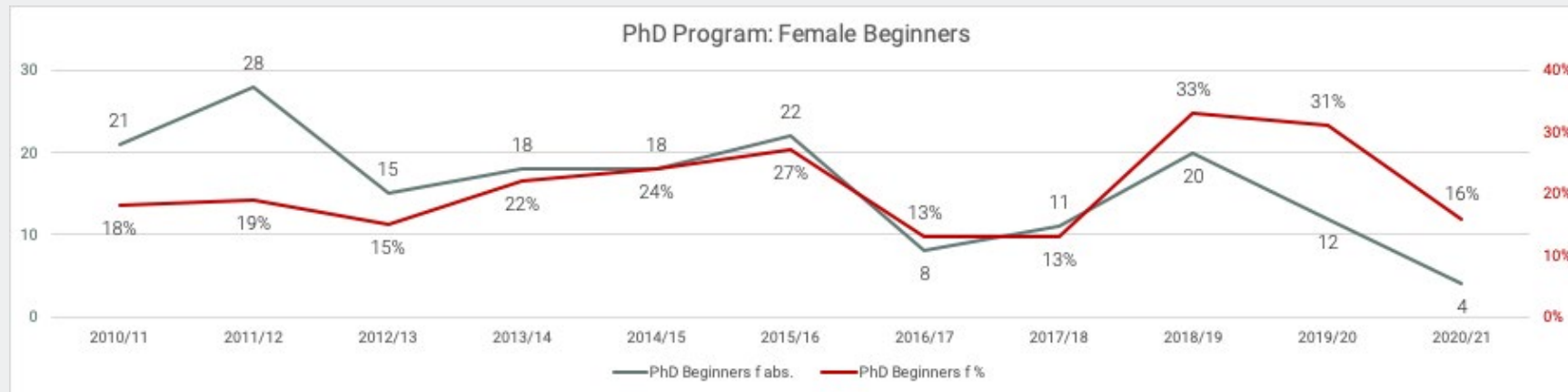
# Some Statistics – Bachelors



# Some Statistics – Masters



# Some Statistics – PhD Students



## Some more Statistics – Professor Level (as of June 1 2022)

- 6 women *out of* 28 Full Professors (soon 7/29 :-)
- 5 women *out of* 37 Associate Professors
- 6 women *out of* 11 Assistant Professors
  - + 4 via excellence program from rectorate in 2025
  - + 1 via decision of the dean in 2025

# What happened so far at TUW and Informatics level (selected list)

- Women's Postgraduate College for Internet Technologies (WIT, 2003-2007), Faculty of Informatics, [www.wit.at](http://www.wit.at)
- WIT 2, 4 Faculties of TU Wien (2008-2011)
- FIT Days („Frauen in die Technik“, since 1999)
- IT sommer workshops for female pupils (since 2005)
- BLUE&MINT, Kooperation IBM / TU Wien (since 2012)
- Post-doc positions for female scientists
- Online mentoring for female students (beginners)
- Mentoring for female Master/PhD/Post-doc students



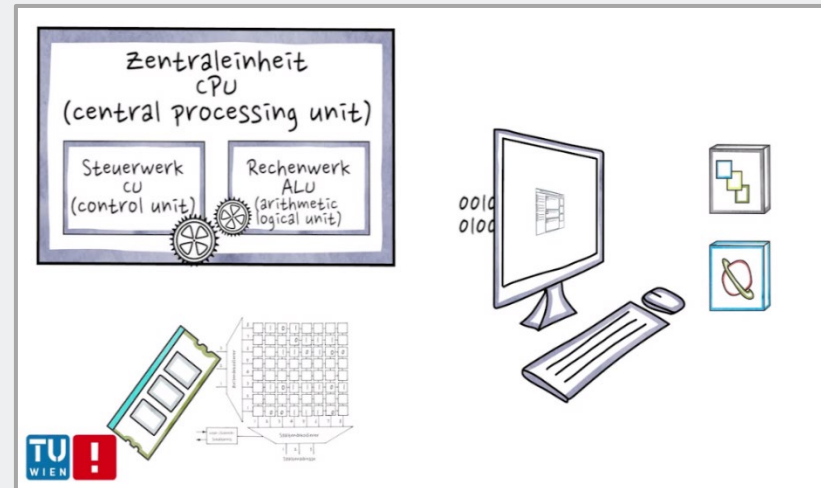
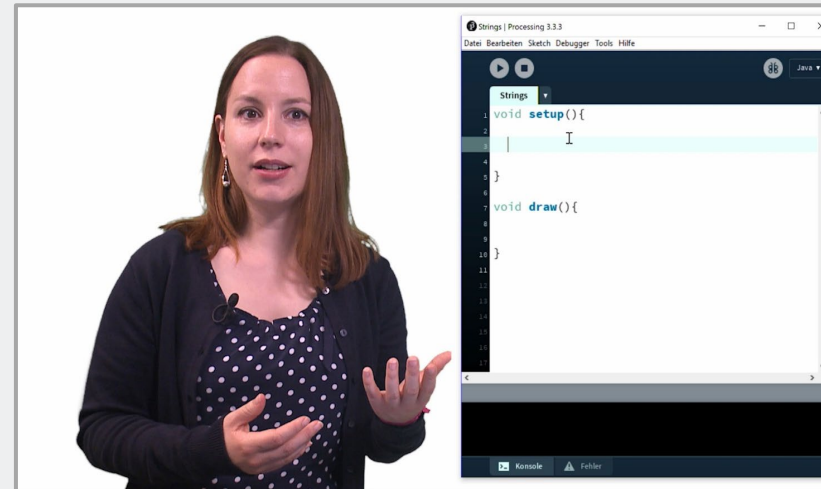
# Current female support activities (selected list)

- Attract – Retain – Promote – Sensitize

Attract

- FIT Days („Frauen in die Technik“, since 1999)
- Bridging course „Intro to Programming with Processing“
  - for female (and male) students
  - learn and network
- MOOC „Programing with Processing“
- Entry exam without m/f discrimination
- Interface with Schools – Vienna Informatics Living Lab (VILL)
  - > Workshops and permanent exhibition „Abenteuer Informatik“

# MOOC „Programming with Processing“ – Video production



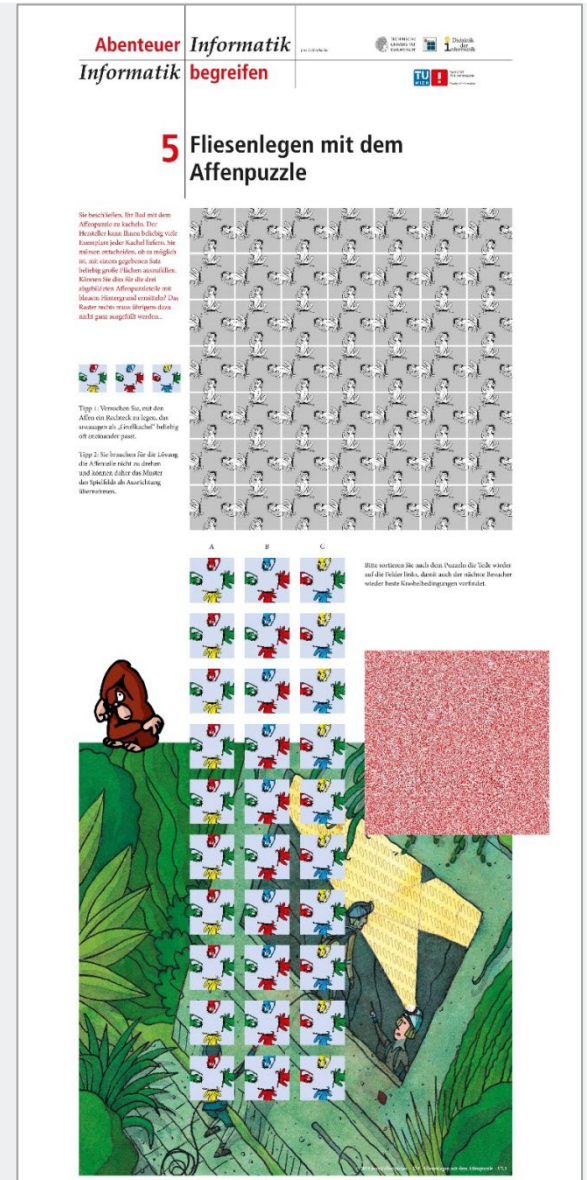
# “Abenteuer Informatik“ Exhibition

## Motivation and Aims

- Create enthusiasm among pupils for Informatics
- Provide incentives for Informatics education at schools
- Strengthen the interface between TU Wien and schools

## Facts

- Imparts ways of thinking in Informatics illustrated with typical problems
- 10 topics consisting of 4-5 panels (80cm x 200cm) each
- Various interactive experiments with tangible artifacts
- Implemented as a **permanent exhibition**
- Workshops for school classes from 5<sup>th</sup> to 13<sup>th</sup> grade



# “Abenteuer Informatik“ Workshops

- **social responsibility**

- involve socially disadvantaged people
- involve female students
- close the gap between school and university
- involve a large amount of students in informatics activities

- **realistic view on informatics**

- propagate thinking informatically
- comprehend informatics as a science that shapes the world
- show the broadness of informatics
- propagate a scientific style of informatics education

- **impulses for teachers**

- develop new learning materials
- propagate discovery learning
- propagate group learning
- involve more teachers in informatics activities

- **impulses for students**

- arouse interest
- to study at a university
- motivate to be deeper interested in informatics
- provide fun and enjoyment with informatics
- arouse interest to study informatics

# „Abenteuer Informatik“ Workshops Summer Term 2019

## Participants by school type

School type	Classes	Female students	Male students	Students
Volksschule	1	10	8	18
Neue & Wiener Mittelschule	9	81	106	187
Gymnasium Unterstufe	4	41	46	117
Polytechnische Schule	3	16	31	47
Berufsschule	2	9	31	40
Handelsschule	3	36	32	68
Gymnasium Oberstufe	5	27	41	38
HTL	4	12	87	99
HAK	3	31	38	69
Total	34	263	420	
<b>Students</b>				<b>683</b>

# „Abenteuer Informatik“ Workshops Winter Term 2019

## Participants by school type

School type	Classes	Female students	Male students	Students
Volksschule	1	9	13	22
Neue & Wiener Mittelschule	5	35	41	76
Gymnasium Unterstufe	13	165	161	326
Polytechnische Schule	1	0	19	19
Berufsschule	0	0	0	0
Handelsschule	1	0	15	15
Gymnasium Oberstufe	8	58	59	117
HTL	1	2	14	16
HAK	1	5	15	20
HLA	1	14	7	21
Total	32	288	344	
<b>Students</b>				<b>632</b>

# Current female support activities (selected list)

- “Studienassistentinnen”
  - financially supported via gender budgeting
  - 6 positions 2016 – 2019
- “Visit a scientific conference” for female Master students
  - 35 scholarships in 2016 – 2019
- Excellence scholarships for BA/MA female students
  - financially supported by SIEMENS AG Austria
  - 10 scholarships per year

Retain



# Current female support activities (selected list)

Promote

- “Talk at scientific conferences” for female PhD students
  - 38 scholarships in 2016 – 2019
- Post-doc positions for female scientists (since 2008)
  - 8 so far
  - 3 out of these 8 are full professors at the faculty right now
- Assistant Professorships (Tenure Track) for female scientists
  - 1 filled 2018 (out of 55 highly competitive applications)
  - 2 filled 2021 (out of 41 highly competitive applications)



# Current female support activities (selected list)

Sensitize

- Attend Gender Awareness Workshops at TU Wien
  - 28 so far (winter term 16 + summer term 17)
  - willingness of colleagues is limited 😞
- Support female guest professorships
  - 9 so far (out of 78, less than 12% 😞)
- Gender competence as desired competence for professor positions
  - part of official hiring procedure of TU Wien since Oct 2021

# Side step 1 - ... the issue with the name\*)

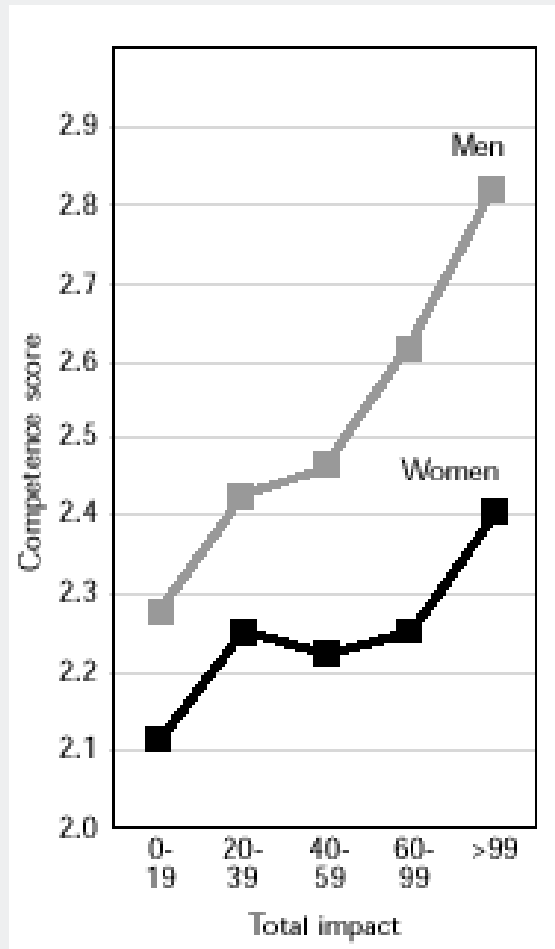
180 women and 180 men were asked to review a mathematics paper and rate it from 1 (very good) to 5 (very poor).

	author		
	John T. McKay	Joan T. McKay	J. T. McKay
Men	1.9	3.0	2.7
Women	2.3	3.0	2.6

M. A. Paludi and W. D. Bauer, "Goldberg Revisited: What's in an Author's Name", *Sex Roles: A Journal of Research*, 9 (1983) pp. 387-390.

P. Goldberg, "Are Women Prejudiced Against Women?" *Trans-Action* 5 (1968), pp. 28-30.

## Side step 2 - ... different ratings for women\*)



**Total impact** = Addition of the impact factors of all published journal articles

**Competence score:** impact factors

- Scientific productivity
- Gender
- Acquaintance with jury members

Christine Wennerås & Agnes Wold,  
« **Neptotism and Sexism in Peer Review** », Nature 387, 341 (**1997**)

## Side step 3 - ... what biases do you have?\*)

<https://implicit.harvard.edu/implicit/takeatest.html>

# What we have learned...

- Our competitor
  - Conservative society (home, school, culture)
- Mindset
  - Women are not in need of support but worthy of support
- Female students have to learn to accept support activities
  - Opinion poll (summer 2015) among female BI/CS students:  
only 27% are in favour of female support activities

# What we have learned ...

- Learn from best practice examples
  - CMU (Lenore Blum)
  - Harvey Mudd College (Maria Klawe)
  - University of Edinburgh (Jane Hillston)
  - University of Bamberg (Ute Schmid)
  - ...
- Curricula in universities have to be adapted
- Appropriate curricula in schools are necessary
  - Teach the teacher

# What we have learned...

- Role Models
  - Necessary at all career levels
  - AcademiaNet - <http://www.academia-net.de>
- Worthy of support
  - Dean's List, especially for female students
  - Award for attending Grace Hopper Conference (not yet realized)
- Sustainability, sustainability, sustainability, ...
  - (not only CO<sub>2</sub> reduction but female empowerment 😊)
- Resources necessary (money, human resources)

# Instruments @ TU Wien

- Vice Rector for Human Resources and Gender
- Office for Gender Competence
  - At Vice Rector level
- Working group on equality issues
- Faculties @ TU Wien (have to) implement female support activities (gradually)
  
- Kindergarten @ TU Wien
  - Christiane Nüsslein-Volhard,  
Nobelpreis 1995 für Physiologie oder Medizin,  
**Stiftung zur Förderung von Wissenschaftlerinnen mit Kind!**