



# European Physical Society

*fostering visibility and influence of  
female physicists in Europe  
...a challenge...*

*Els de Wolf, University of Amsterdam/Nikhef  
21 November 2013, Vilnius*





# How it begun...

Founded in 1968 in Geneva

*“as a further demonstration of the determination of scientists to collaborate as close as possible in order to make their positive contribution to the strength of European cultural unity”*

Under leadership of  
Gilberto Bernardini,  
former CERN's Research  
Director





.....where it is now...



Headquarters  
in Mulhouse,  
France



# ....and whom it represents

*As federation of  
national societies*

*42 member societies*



*As learned society*

*3500 individual members*

*Altogether  
more than 100,000  
European Physicists*

*37 associated members  
research infrastructures,  
funding agencies,  
universities, companies*



# Facilitating physics research

## 11 Disciplinary divisions

*Quantum Electronics and Optics, Physics Education, Plasma Physics, High Energy Particle Physics, ...*

## 17 Interdisciplinary thematic groups

*Energy, Technology and Innovation, Physics for Development,...*

Conferences, grants

Prizes and Awards

Refereed scientific journals

*EPL, EPJ*

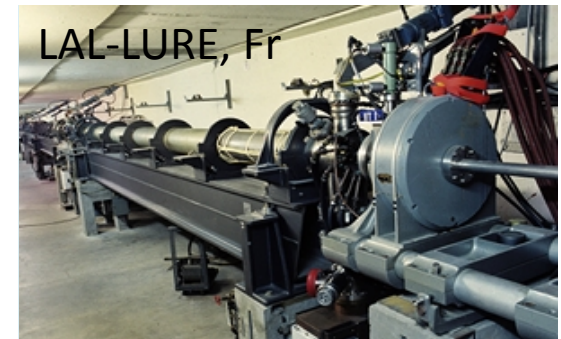




# Celebrating physics

## Historic Sites

*To commemorate and  
celebrate places in  
Europe important for  
physics development*



*(proposal)*

International Year of Light 2015





# Shaping the agenda

## Forum

Physics and Society

*Physics in the Market  
Place (2012), Science,*

*Journalism and  
Communication*

*(2010), Physics*

*Teaching: a New Deal  
(2009)*

## European Integration

*E.g. the Balkan area and  
Central-East Europe*



Equal  
Opportunity  
Committee



# Supporting gender equality

Collective membership of EPWS  
since 2005

Support participation in IUPAP  
Conference Women in Physics  
(2008, 2011)

Support participation in  
Conference Woman Shaping  
Science  
(2008, Vilnius)

Organisation of gender-  
session at EPS Plasma Physics  
conference  
(2009)

Support of presentation of  
'Girls in Physics' project in  
Brussels (2010)

Emmy Noether Distinction  
(2013)  
*'It is all about visibility'*





# Excellent role models in Europe

Luisa Cifarelli

Representing 100,000 European  
physicists as the first female EPS  
President



Fabiola Gianotti

Leading the ATLAS Collaboration of  
several thousands of physicists



[...intermezzo...]

From physics to politics



She's a role model too



# A role model from the past

Emmy Noether  
*German Mathematician*  
1882-1935

Theorem *fundamental tool*  
for modern theoretical  
physics

Excellent role model for a  
*physics prize* to be named  
after





# Emmy Noether Distinction

Excellent female  
physicists *for their  
personal  
achievements in  
physics research,  
education, outreach  
or other physics  
related work*

To enhance the *recognition* of  
noteworthy women physicists  
with a strong connection to  
Europe

To attract women to a career in  
physics

*Twice per year*

*Visibility of excellence through  
role model approach*



# 2013 Emmy Noether Awards

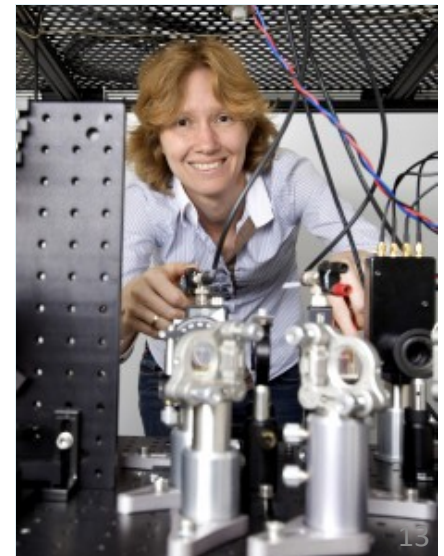
**Dr Alessandra Gatti**

Institute of Photonic and Nano  
technologies, Como, Italy



**Prof. Dr Nynke Dekker**

Kavli Institute of NanoScience, Delft  
University of Technology, Netherlands





# Enhancing influence

## EPS Conferences

Charter for promotion of female physicists among convenors and (key-note) speakers

## EPS 'best practices'

Collect from and share with the Member Societies best practices of equal opportunity policies at European research institutes and universities

## EPS governance

Charter with EPS Divisions/Groups and Committees for their equal opportunity policies

*Aiming at visibility for a greater influence of female physicists in the European physics community*





# Creating belonging

“Girls do not feel at home with physics”

15 year old Molly of Redland Green School in the UK:

“Girls are usually not doing physics not because they’re not good at it, but because they have other preferences to it. I think girls just find it more interesting to do other things.”

Sociologist Louise Archer at King’s College London.:

*“The lack of female role models* has a profound effect on girls choosing A-levels. For girls in particular, physics is seen as being a very masculine subject. So the girls who like physics have to work a lot harder to balance it with that notion of normal femininity.”

EPS discussion about ‘Girls and physics’ with its  
Physics Education Division

Quotes from:

*Why don’t more girls study physics?* by Jim Carwright, *The Telegraph*, 17 March 2013



# Summary of achievements

- Support of participation in equal opportunity conferences/projects ('women in science')
- EPS Individual Members: 24% of new members is female (data 2010-2012)
- Equal Opportunity Action Committee (2013)
- Emmy Noether Distinction established 2013
- EPS Governance status in 2013
  - First female president (2011-2013)
  - 21% women in EPS's Executive Committee
  - on average 20% women in other boards/committees
  - Three divisions > 40% women in board
  - *1 division and 1 group 0% women in board*



# In preparation

- Charter with EPS Conference committee
  - Promote female (key-note) speakers and session convenors
  - Promote gender-sessions at EPS conferences
  - Support participation in 'Woman in Science' policy conferences
- Sharing best practices for equal opportunity policies
  - With Member Societies, other Learned Societies and funding agencies
- With Member Societies
  - Search for female candidates for EPS presidency and Executive Committee
- Charter with all divisions/groups
  - Enhance number of women in boards/committees
  - Enhance number of female (key-note) speakers and session convenors
  - Possibly additional distinctions
- Discussion 'Girls and Physics' with Physics Education Division



# Input for discussion

## The European Physical Society

- Is pleased that the number of woman in physics research is rising
- Recognizes that 'a lack of belonging' is still a *threshold for girls* for choosing physics
- Believes that establishing Best Practices *will show long term* improvements
- Has started studying *charters for gender equality policy* in physics research organisations in Europe and will try to encourage adopting such charters
- Considers it important that such charters will be given *sufficient time for evaluation*
- Considers *visibility the best tool* to enhance *influence* of women in the physics community
- Considers *this visibility and influence* important to lower the threshold for girls to eventually choose a physics related study/career





# American Physical Society ]

## Women in Physics

- Workshops & Meetings
- Scholarships & Awards
- Publications & Multimedia
- Women Speakers List
- Site Visits
- Assessing Graduate Programs
- Resources

Included in  
review of  
'best practices'