

# 17<sup>th</sup> Geilo Winter School in eScience



# Outline

- About the winter school
- Practical information
- This years topic and program

# What is the winter school?

- Started by Knut-Andreas Lie in 2001
- Held annually the end of January at Dr. Holms Hotel, Geilo

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
07:00 - 09:00		Breakfast				
09:00 - 10:30		Lecture	Lecture	Lecture	Lecture	Lecture
10:30 - 12:30						Lecture
12:30 - 14:45		Break (lunch 12:30 - 14:00)				Lunch, End
15:00 - 16:30		Lecture	Lecture	Lecture	Lecture	
16:30 - 17:00		Coffee				
17:00 - 18:30	Lecture	Lecture	Lecture	Lecture / Poster	Lecture	

- Typical schedule consists of 14 double lectures (1.5 hours)
  - The lectures targets Ph.D. students and young researchers
  - Long mid-day break for skiing and socializing
  - School topic chosen by scientific committee each year



# What is the winter school?

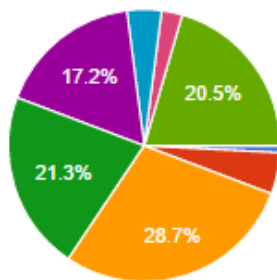
The aim of the winter school is two-fold

1. Learn something about a new topic in eScience
2. Meet and connect with other PhD students within a different field of eScience



# Who is here now?

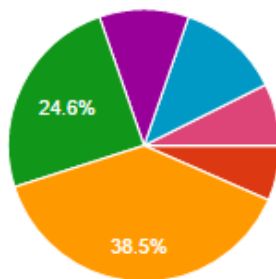
Field of research:



Chemistry	1	0.8%
Physics	6	4.9%
Mathematics	35	28.7%
Statistics	26	21.3%
Informatics	21	17.2%
High performance computing	5	4.1%
Biology	3	2.5%
Other / Not applicable (please note in comments)	25	20.5%

# Who is here now?

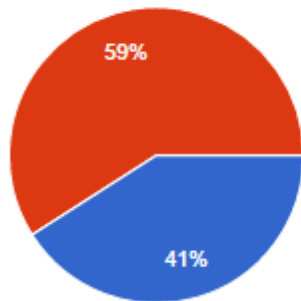
## Research level:



Bachelor student	0	0%
Master student	8	6.6%
PhD student	47	38.5%
Post doc / young researcher	30	24.6%
Associate professor / experienced researcher	13	10.7%
Professor / senior researcher	15	12.3%
Other / Not applicable (please note in comments)	9	7.4%

# Who is here now?

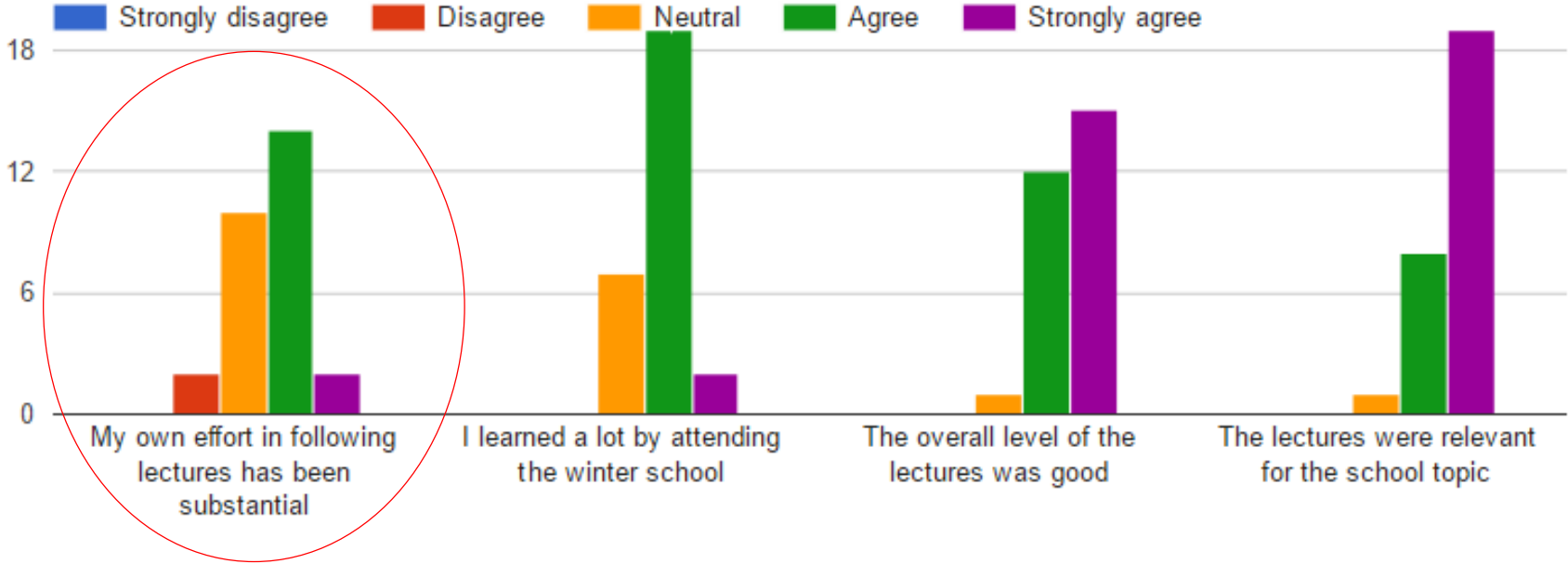
I will bring a poster to the winter school:



Yes **50** 41%

No **72** 59%

# Survey from last years school





# Varied topics within eScience

2001: Cluster computing

2002: Methods for CFD

2003: Nonlinear PDEs

2004: Evolutionary PDEs

2005: Inverse problems

2006: Finite Element method

2007: Monte Carlo methods

2008: Parallel Computing

2009: Optimization

2010: Automatic Differentiation

2011: Multiscale methods

2012: Continuum Mechanics

2013: Reproducible Research

2014: Big data and statistics

2015: Uncertainty Quantification

2016: Scientific Visualization

2017: Machine Learning

2018: ???

2019: ???

2020: ???

# Winter Schools in eScience

- Scientific committee 2016-2020:
  - Inga Berre, University of Bergen
  - Xing Cai, Simula / University of Oslo
  - Anne C. Elster, NTNU
  - Margot Gerritsen, Stanford
  - Helwig Hauser, University of Bergen
  - Knut-Andreas Lie, SINTEF / NTNU
  - Hans Ekkehard Plesser, Norwegian University of Life Sciences
  - Geir Storvik, University of Oslo
  - Ståle Walderhaug, SINTEF / University of Tromsø
  - Trond Kvamsdal, NTNU

# Winter Schools in eScience



With funding from  
The Research Council of Norway

- Funded by the Research Council of Norway
  - 2001-2004: *Winter schools in computational mathematics* (137461)
  - 2005-2006: *Winter schools in computational mathematics* (159868)
  - 2007-2010: *National Arena in eScience* (178774)
  - 2011-2015: *eVita Winter School* (203376)
  - 2016-2020: *Geilo Winter School in eScience* (249772)

# Information about Dr. Holms

- Opened in 1909
  - Originally a place for asthmatic city dwellers to get fresh air (Relevant even today!)
  - Rebuilt and extended countless times.
- Meals for those staying at Dr. Holms
  - Breakfast from 7:30 to 9:00
  - Lunch from 12:30 to 14:00
  - Dinner at 19:30
  - Coffee breaks with light snacks
  - Please: no ski boots, shorts, sandals etc. in the dining hall
  - Allergies? Let the hotel know!
- Use the meals and breaks as an opportunity to meet someone new
- All beverages must be paid for separately



Dr. Ingebrikt Christian Holm



Ghost Woman, Nelson Soucasaux

# Information about Dr. Holms

- Discounted ski passes can be bought at Slaatto
  - 2 hours for 160 NOK (50 NOK for a reusable keycard)
  - 4 hours for 190 NOK (50 NOK for a reusable keycard)
- Discounted ski passes with ski rental
  - 30% discount: Ask for information at the reception
- You may eat lunch in the slopes:
  - You can also make your own packed lunch during breakfast













# Information about Dr. Holms


- Bowl & Dine with bowling hall
  - 50 meters to the right when exiting the hotel by the reception.
  - NOK 360 per lane per hour
- Swimming pool and spa department
  - Close to the lecture halls
  - Spa open for reservations



# Weather forecast for Geilo

## Langtidsvarsel

Mandag 16. januar 12–18	Tirsdag 17. januar 12–18	Onsdag 18. januar 13–19	Torsdag 19. januar 13–19	Fredag 20. januar 13–19
				
-9°	3°	3°	3°	3°
0 mm	0 mm	0 mm	0 mm	0 mm
				

  
SNØFORHOLD

Sist oppdatert: 15/1 07:26 | Status: Åpent  
Planlagt lukking: 22/4 | Snøforhold: Meget bra

	LØRDAG 14/1	IDAG 15/1	MANDAG 16/1
SNØFALL	0cm	0cm	0cm
SNØDYBDE I NEDFARTENE	Øvre område: 70cm Maskinpreparert	Midtre område: 60cm	Nedre område: 40cm Maskinpreparert
I TERRENG	Øvre område: 15cm Variabelt	Midtre område: 20cm	Nedre område: 20cm Variabelt

Yr.no, Skiinfo.no, 2016-01-



# Internet

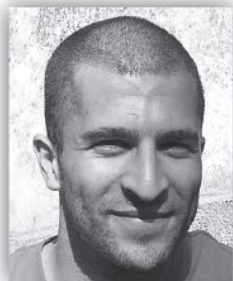
Network name: Dr. Holms Hotel  
No password required

# With great power comes great responsibility

- Please show respect for our lecturers:  
use the internet responsibly and pay attention
- There's ample time during the breaks to check important emails etc.



# Lecturers



Filippo M. Bianchi



Devdatt Dubhashi



Nils Lid Hjort



Robert Jenssen



Michael Kampffmeyer



Mark Tibbetts



Joaquin Vanschoren

# Winter School Program

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	
07:30 - 09:00	X	Breakfast					
09:00 - 09:45		Robert Jenssen Michael Kampffmeyer	Filippo Bianchi	Devdatt Dubhashi	Nils Lid Hjort	Nils Lid Hjort	
09:45 - 10:30							Checkout by 11:00
10:30 - 11:00		Break					
11:00 - 11:45							Summary and lunch
11:45 - 12:30		(Lunch 12:30 - 14:00)					
12:30 - 15:00							X
15:00 - 15:45		Joaquin Vanschoren	Devdatt Dubhashi	Devdatt Dubhashi	Mark Tibbetts		
15:45 - 16:30		Coffee					
16:30 - 17:00		Introduction	Robert Jenssen	Joaquin Vanschoren	Nils Lid Hjort	Poster session	
17:00 - 17:45	Joaquin Vanschoren						
17:45 - 18:30							
18:30 - 19:15							
19:30	Dinner						

- Lectures start on the hour, not quarter past.
- Show respect for our lecturers and be on time (also for the morning lectures)!
- Today we will have a lecture until about 19:15

# Poster session

- From 17:00 - 18:30 on Thursday
- Wide range of topics  
See program for list of presenters
- Hang posters during break on Thursday
- Light refreshments (canapés)  
and a drink coupon



# Welcome

- Thank you all for coming to the winter school
- I truly hope you will have a good week here!