

King Abdullah University of  
Science and Technology



جامعة الملك عبد الله  
للعلوم والتقنية

# KAUST STATISTICS PROGRAM 5 YEARS ANNIVERSARY 2012-2022



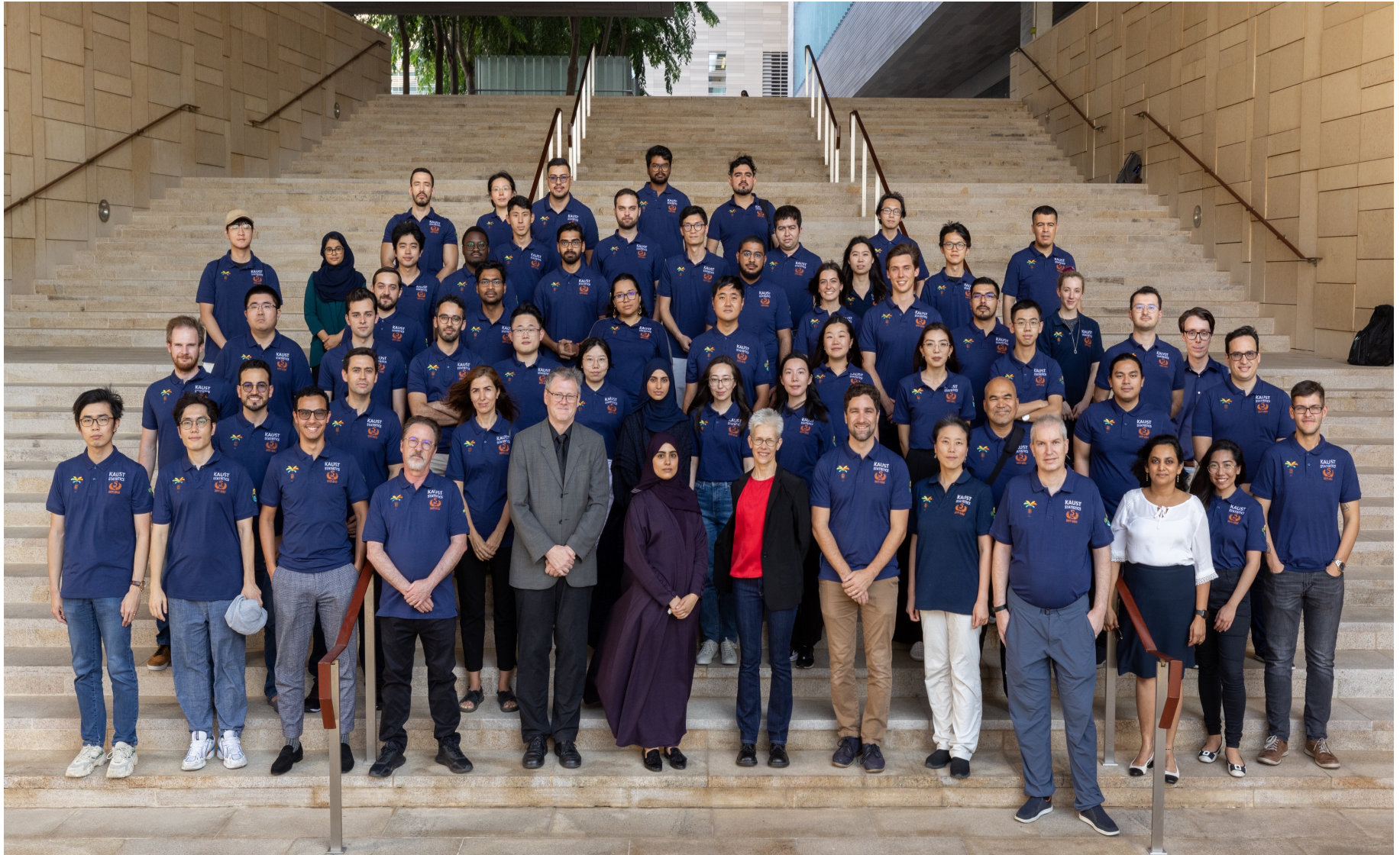
Marc G. Genton

October 31, 2022

STATISTICS  
@KAUST

<https://stat.kaust.edu.sa>

# Statistics Program @ KAUST now!





# Statistics @ KAUST in 2012

My research group:



# How did I end up at KAUST?

- KAUST construction started in Fall 2007, opened for classes on Sept. 23, 2009
- KAUST Global Research Partnership centers: awarded to Oxford, Cornell, Stanford, Texas A&M in 2008
- TAMU: Institute for Applied Mathematics and Computational Science (IAMCS; involved 3 departments: Applied Mathematics, Computer Science, Statistics)
- Jim Calvin (Director) and Raymond J. Carroll (Statistics Deputy Director)
- 2009-2012: Jim Calvin taught a course at KAUST then hired to become VPAA; Raymond J. Carroll became Director of IAMCS; Marc G. Genton became Statistics Deputy Director of IAMCS
- After several KAUST-IAMCS workshops, Marc G. Genton hired at KAUST in the Applied Mathematics and Computational Science (AMCS) program; first working day on October 16, 2012



# Beginning of Statistics @ KAUST

- Introduced new course AMCS 243 (now STAT 220) Probability and Statistics
- Statistics first as track in AMCS
- First PhD student in Fall 2013: Sabrina Vettori (from University of Padova), PhD 2017, now CEO of KAUST startup Edama Organic Solutions



- Second Postdoc in Fall 2013: Raphael Huser (from EPFL)

# My research group in 2014





# Ying Sun's research group in 2014





# Genton-Huser-Sun groups in 2015



Deepa Pinto joins in 2016 as business coordinator



...and as a problem solver!

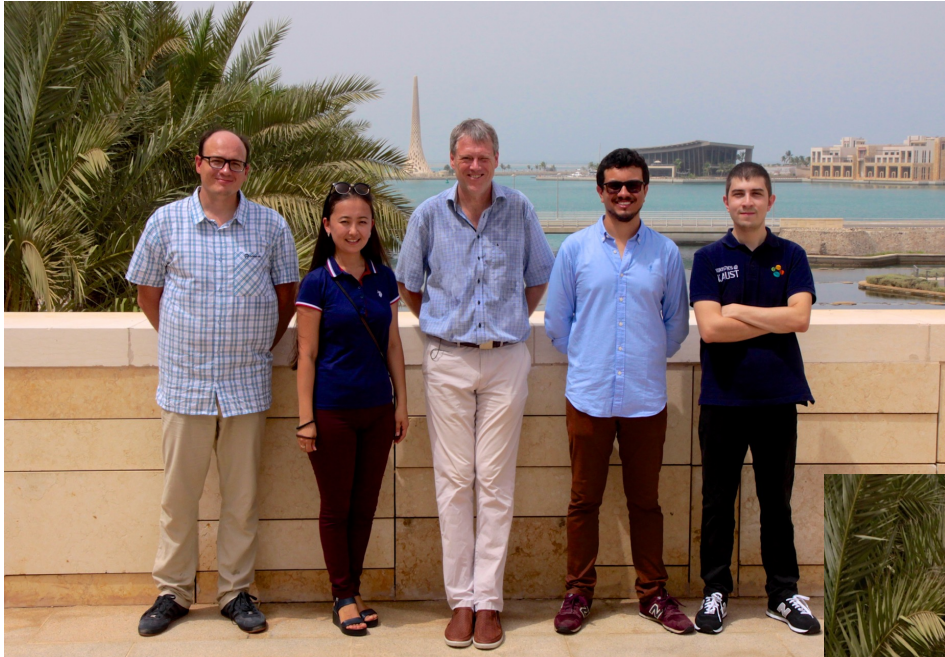


# Genton-Huser-Sun groups in 2016



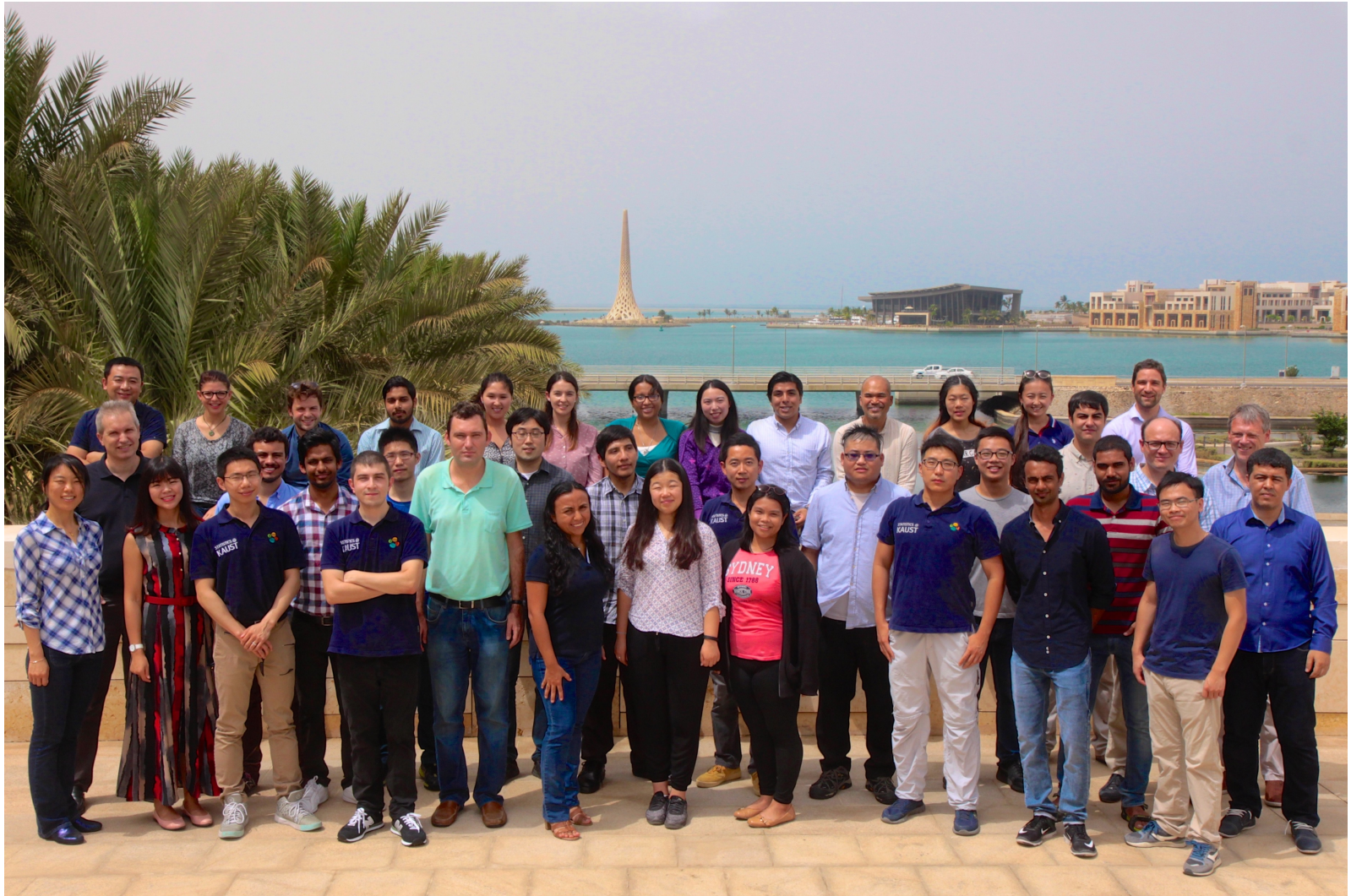


# Haavard Rue and Hernando Ombao join in Spring 2017





# Haavard Rue and Hernando Ombao join in Spring 2017



# Fall 2017: start of new Statistics Program (STAT)

with the support of Dean Mootaz Elnozahy

and with Marc G. Genton as Founding Program Chair

The STAT program "logo" represents a date palm tree whose branches have the KAUST colors and whose brown trunk is a symmetric boxplot, a key tool for statistics data visualization

On top of the palm, five outliers with different magnitudes have been detected and visualized

The date palm tree represents vitality and growth, whereas the boxplot represents statistics



**STATISTICS**  
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# Statistics Program in 2018



# Joaquin Ortega and David Bolin join in Fall 2019





# Statistics Program in December 2019





# Graduation ceremony in December 2019





Paula Moraga joins in Fall 2020



Hernando Ombao takes over as  
Statistics Program Chair in Fall 2020



# ... covid ... Statistics Program in 2022!



# Statistics Program @ KAUST now!

- 8 core STAT faculty (2 additional open positions!)
- 11 affiliated faculty (3 AMCS; 4 CS; 3 ECE; 1 ErSE)
- 5 Research Scientists (2 alumni)
- 10 Postdocs (24 alumni)
- 35 PhD students
- 10 MS/PhD students
- 3 MS students

## Delivered so far:

- 13 PhD degrees (another 10 expected during the next year)
- 21 MS degrees

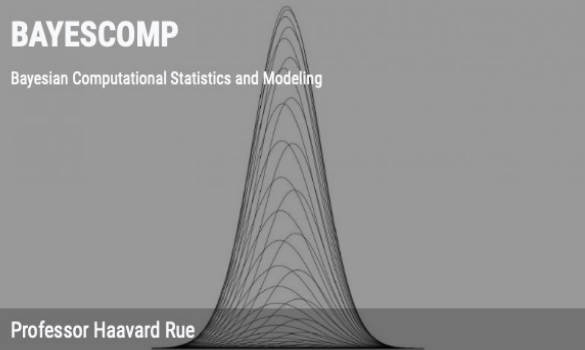


# Statistics Program Core Research Groups

## BAYESCOMP

Bayesian Computational Statistics and Modeling

Professor Haavard Rue



## BIOSTATS

Biostatistics

Professor Hernando Ombao



## ES

Environmental Statistics

Professor Ying Sun



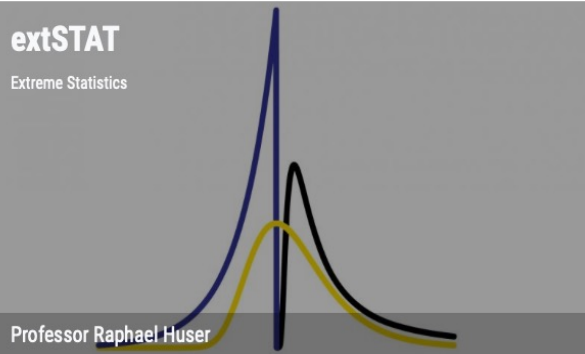
EnvStat

KAUST

## extSTAT

Extreme Statistics

Professor Raphael Huser



## GeoHealth

Geospatial Statistics and Health Surveillance

Professor Paula Moraga

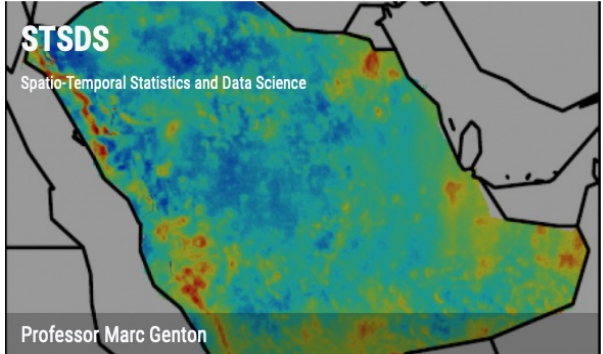


GeoHealth

## STSDS

Spatio-Temporal Statistics and Data Science

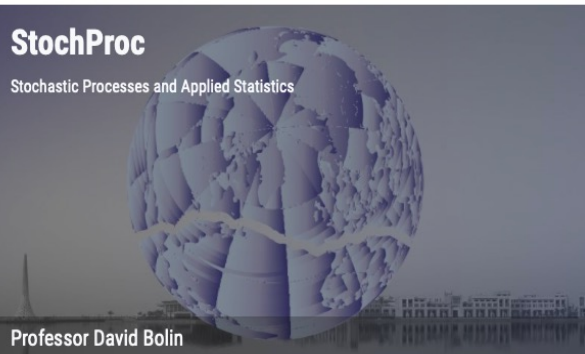
Professor Marc Genton



## StochProc

Stochastic Processes and Applied Statistics

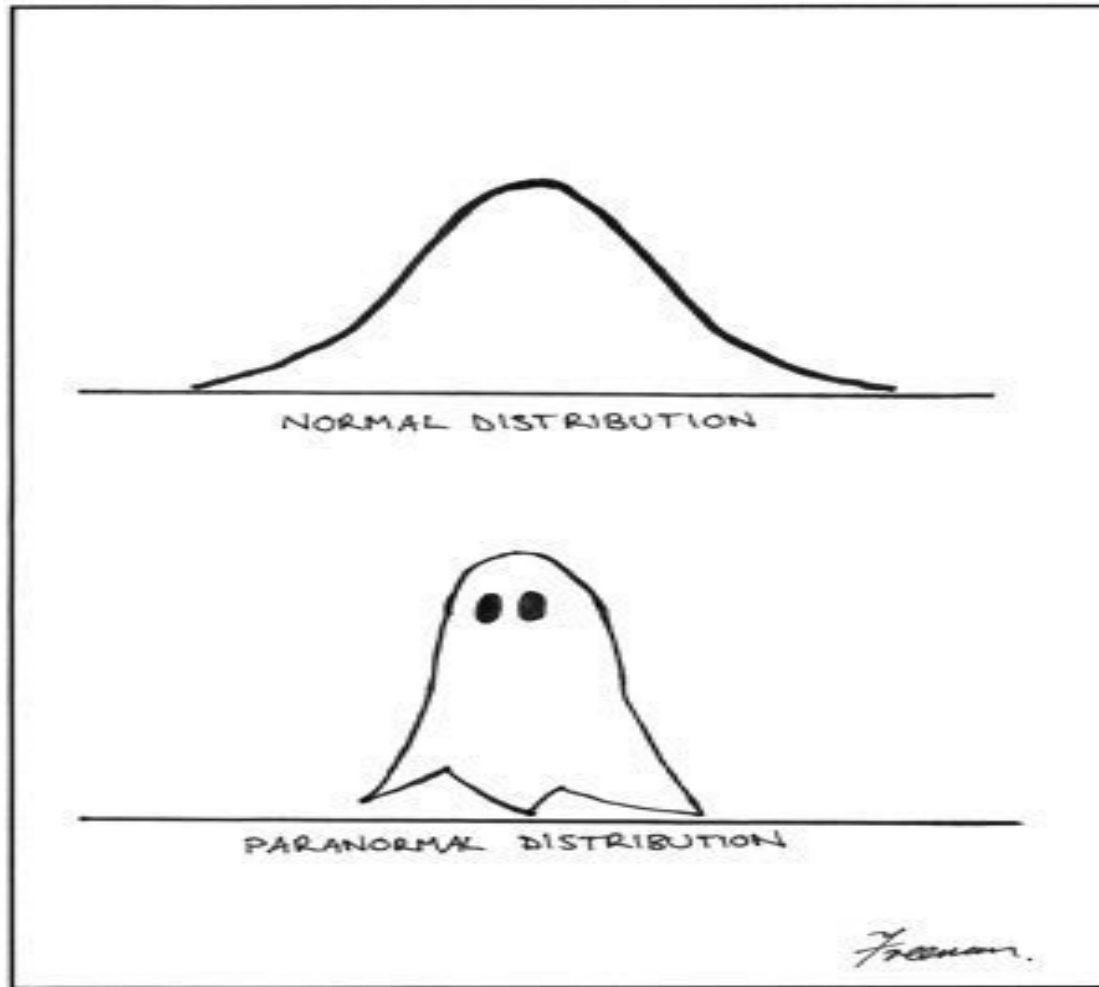
Professor David Bolin



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# Happy Halloween. . .



. . . and enjoy the workshop!