

# DATA SCIENCE LAB

**ANNUAL REPORT 2022**

UNIVERSITY OF COPENHAGEN



# AIM

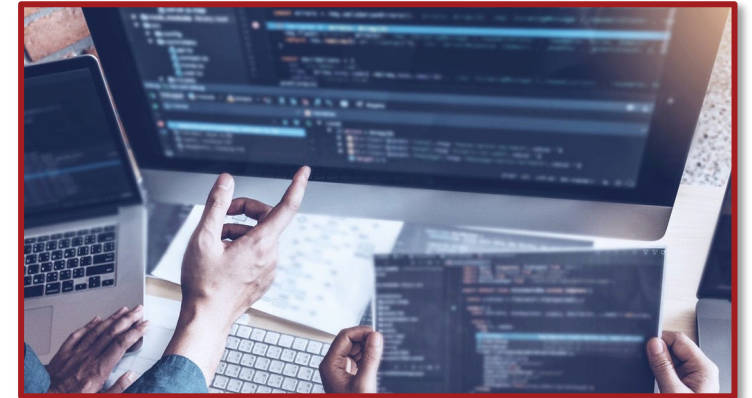
**Data Science Lab  
aims to enhance the quality  
of scientific data analyses in  
at SCIENCE**

**We do this through courses,  
workshops, collaborations  
with researchers, and  
counseling of students and  
researchers**



# OVERVIEW OF ACTIVITIES

- **Research collaboration** across research areas
- **Consultancy meetings** with students and researchers
- Four **PhD courses** per year
- Short **courses** about **Python**, **R**, and **Data Science**
- **Supervision** of BSc and MSc theses in collaboration with other departments or private companies
- **Presentations** at PhD courses, **visits** to sections, **dissemination**
- For payment: **Courses** and **counseling** for public offices and private companies



# HIGHLIGHTS FROM 2022



**Bo Markussen** (MATH)  
Head of Laboratory (Statistics)

*Open sharing of data and analysis scripts is a growing trend in science. We have focus on this in our collaborations, and initiated the creation of a course on “Reproducible data analysis using R”. This complements the new focus on data management, and provides a complete pipeline from data collection to scientific publications.*

*In 2022 we created a new “Appreciating AI” course targeting the teachers and are planning an “Introduction to HPC” course to strengthen our collaborations with the other Data Science related researcher services at SCIENCE: the SCIENCE AI Centre and the High Performance Computing Centre. Thereby, the researchers will get easier access to all services no matter where they start.*



**Erik Bjørnager Dam** (DIKU)  
Head of Laboratory (Computer Science)



# RESEARCH COLLABORATION AND PUBLICATIONS

## WHAT

- ✓ Open for counseling of all researchers from SCIENCE (PhD students and up)
- ✓ Range from a single meeting or email to co-authorship and development of new stat / cs methods
- ✓ Collaboration with scientists outside SCIENCE, some for payment

In 2022 we had **49** new approaches  
(plus **123** short consultancy meetings with PhD/Post Doc/Prof)

**16** of the approaches have potential for collaboration  
(joint papers and/or grant submission)

**25** cross-disciplinary journal/conference publications

# COURSES

## WHAT

- ✓ Introduction to R for PhD students and up, 1.5 days
- ✓ Introduction to Python for students and employees, 2 days
- ✓ Statistical Methods for the Biosciences I, 4.5 ECTS
- ✓ Statistical Methods for the Biosciences II. Project course, 3 ECTS
- ✓ Machine Learning and Imaging Methods, 3 ECTS
- ✓ Machine Learning and Imaging Projects. Project course, 4.5 ECTS

## Number of participants on courses in 2022

Course	Number of participants
Introduction to R	<b>30</b> participants
Introduction to Python	<b>33</b> participants Including 10 BSc/MSc
Statistical Methods for the Biosciences I	<b>46</b> participants
Statistical Methods for the Biosciences II	<b>18</b> participants
Machine Learning and Imaging Methods	<b>26</b> participants
Machine Learning and Imaging Projects	<b>9</b> participants

# CONSULTANCY FOR STUDENTS

## WHAT

Consultancy meetings with students two times per week at Nørre Campus or Frederiksberg Campus.

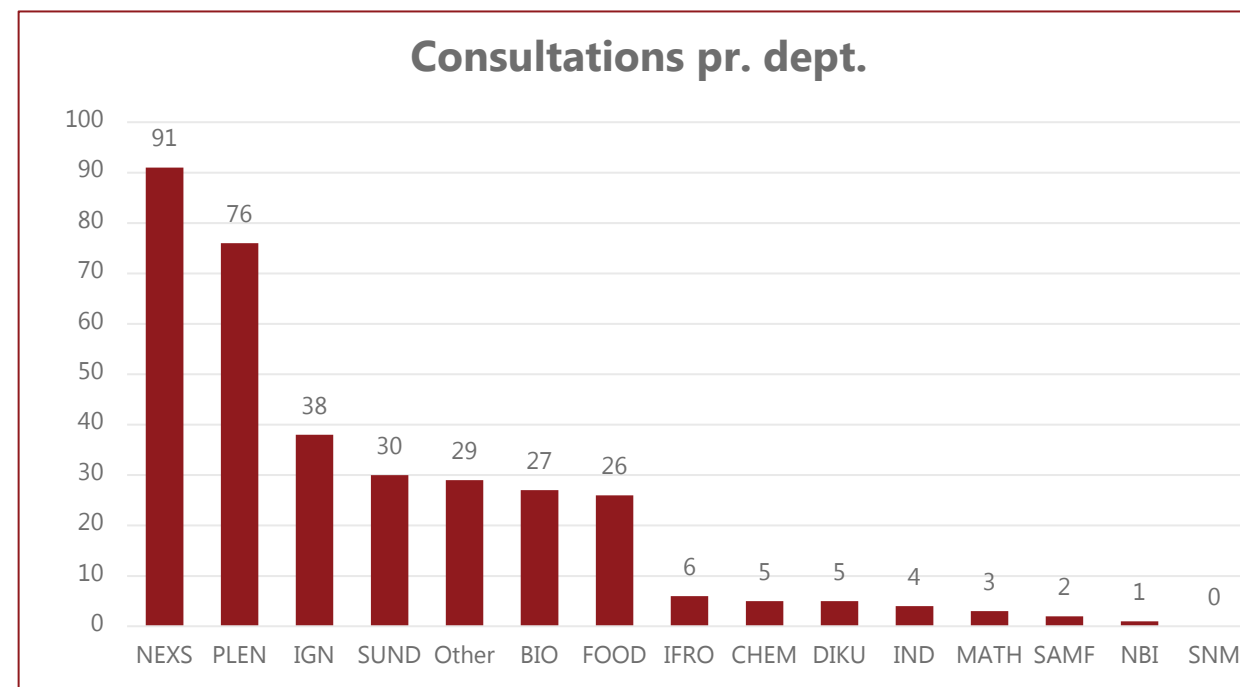
Meetings last 20 min.

Students at all levels are welcome

In 2022 we had **342** consultancy meetings with students

Most visitors write their MSc thesis (46%), but PhD students (30%), BSc students (8%), and others (16%) also show up.

All departments apart from one were represented in 2022:



*"Other" covers the occasional student from another faculty and instances where the department affiliation of the student was not noted at the consultation*

# VALUE CREATED VIA DSL

## WHAT

The primary purpose of DSL is to create/support/augment interdisciplinary science.

However, for some of the activities funded by the 2.9mil DKK per year, it is possible to estimate a monetary value.

In 2022, some of the additional value can be estimated as

Deliverable	Est. value (k DKK)
ECTS activities (516 ECTS at 60k DKK per student FTE)	516
External participants	95
Consultancy services	536
Research grants (interdisciplinary with DSL PI/coPI)	3,137
Total	4,284



# ADVICE ON THE FUTURE DIRECTION

## USER PANEL

In 2020 we established a user panel. The members provides feedback on existing activities as well as input to new/adjusted activities such that researchers and students at SCIENCE can benefit the most from the lab.

### Overview of panel members

Department	Member
PLEN	Giorgio Tomasi, Associate Professor
IGN	Jesper Riis Christiansen, Associate Professor
FOOD	Rasmus Bro, Professor
IFRO	Arne Henningsen, Associate Professor
NEXS	Anne Raben, Professor
PhD rep.	(Graduated - new appointment in 2023)
CHEM	Jan H. Jensen, Professor

## The Faculty Research Committee (SFU)

We recieve advice from SFU on the future direction for the Data Science Lab where we present a yearly report and discuss the future directions.

**We will meet with SFU again in 2023**

# ABOUT DATA SCIENCE LAB

## History

- 2020-2023  
KU Data Science Lab (one of five)
- 2018-2019  
**Data Science Lab**
- 2013-2017  
Laboratory for Applied Statistic
- 2013  
Merge of faculties with different traditions

## Funding

Hosted by Department of Mathematical Sciences (MATH) and Department of Computer Science (DIKU)

Funded with 2+2 FTE, from SCIENCE 2018-2019  
Shared between UCPH and SCIENCE 2020-2023


Seven academic staff members are affiliated with the Lab




# CURIOUS FOR MORE INFORMATION?

Visit our website at  
**[datalab.science.ku.dk](https://datalab.science.ku.dk)**

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
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Data Science Lab

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» Department of Computer Science

» Research e-infrastructure

» Research Data Management and GDPR


Data Science Lab

At the Data Science Lab we aim to enhance the quality of scientific data analyses in research carried out at SCIENCE. We do this through courses, workshops, collaboration with researchers, and counseling of students and researchers.



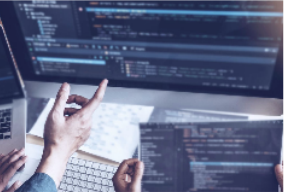
BOOK A MEETING WITH US

Consultations for researchers and students



WORKSHOPS AND PHD COURSES

Workshops in Python and R and various PhD courses



COLLABORATE WITH US

Brief guidance, Co-supervision of PhD students, larger collaborations etc.

ABOUT US

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STAFF AT THE LAB

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CONTACT US

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