The good project start

Rasmus R. Paulsen

DTU Compute
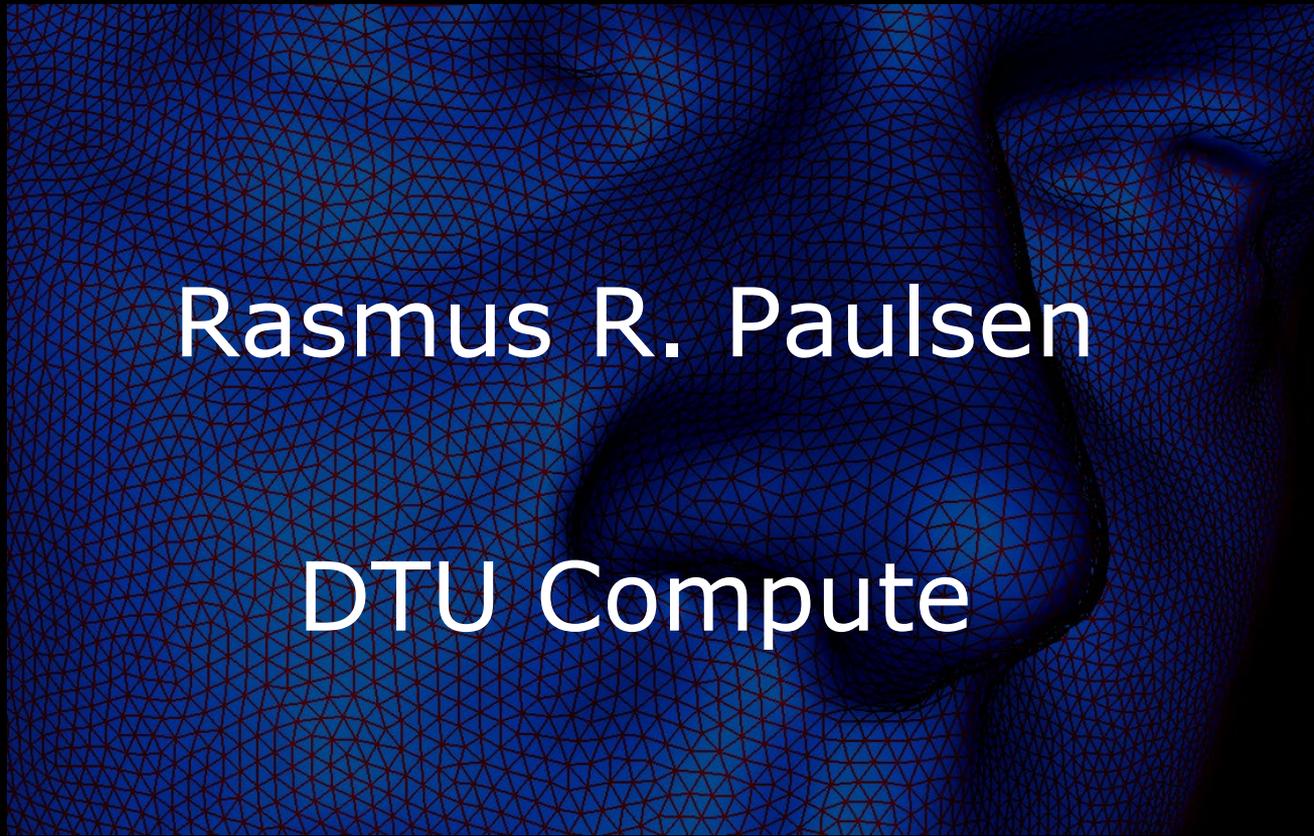
Rasmus
## Associate Professor – Medical Image Analysis
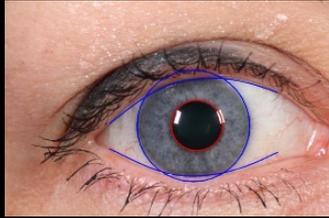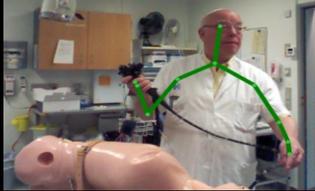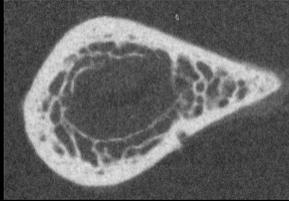
- Master of Science (Eng), DTU
- R&D in startup Pronosco
- Industrial PhD with Oticon A/S
- R&D Oticon A/S
- Associate professor at DTU Compute
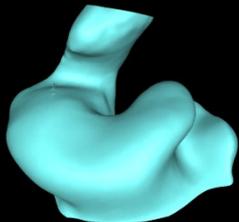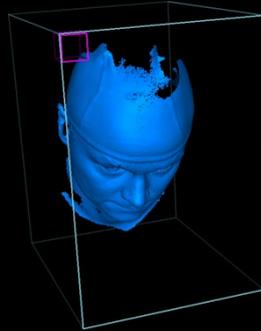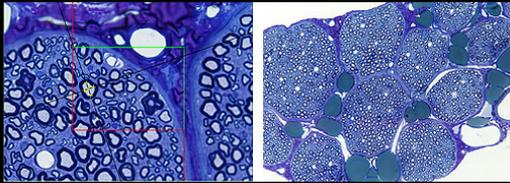
Choosing a project

- Find the right supervisor with the right project
- All faculty at DTU supervise students
  - BSc
  - MSc
  - PhD
- Most faculty have projects in their cupboards
- We prefer to supervise within our research topic

How do I do

- **Identify some supervisor candidates**
  - Good teachers
  - Made interesting talks
  - Interesting research area
- **Look at their homepage**
  - Research
  - Publications
  - Research group
  - Previous supervision

# DTU Compute

DTU COMPUTE
Institut for Matematik og Computer Science

Danmarks Tekniske Universitet
Richard Petersens Plads
Bygning 324, rum 110
2800 Kgs. Lyngby

Tlf. 45 25 34 23
Tlf. 45 25 34 23
Mobil 27 26 61 75
Fax 45 88 13 97
E-mail rapa@dtu.dk
ORCID 0000-0003-0647-3215

Hjemmeside
vCard

Rasmus Reinhold Paulsen
Lektor

Publikationer | Projekter | Kurser | CV | DTU nyheder

Publikationer

Sortér: År

ALLE ARTIKEL I JOURNAL (21) AFHANDLING (10) BOG (6) KONFERENCE (60) RAPPORT (1) PATENT (2) PEER REVIEWED (81)

2017

Foreign object detection in multispectral X-ray images of food items using sparse discriminant analysis

Einarsson, Gudmundur ; Jensen, Janus Nørtoft ; Paulsen, Rasmus Reinhold ; Einarsdottir, Hildur ; Ersbøll, Bjarne Kjær ; Dahl, Anders Bjorholm ; Christensen, Lars Bager
part of: SCIA 2017 (ISBN: 9783319591254), pages: 350-361, 2017, Springer,
Presented at: 20th Scandinavian Conference on Image Analysis, 2017, Tromsø

Type: Article in proceedings (Peer reviewed)

Status: Published | År: 2017 | DOI: http://dx.doi.org/10.1007/978-3-319-59126-1_29

Creating Ultra Dense Point Correspondence Over the Entire Human Head

Paulsen, Rasmus Reinhold ; Marstal, Kasper Korsholm ; Laugesen, Søren ; Harder, Stine
part of: Lecture Notes in Computer Science (ISBN: 978-3-319-59128-5), pages: 438-447, 2017, Springer,
Presented at: 20th Scandinavian Conference on Image Analysis, 2017, Tromsø

Type: Article in proceedings (Peer reviewed)

Status: Published | År: 2017 | DOI: http://dx.doi.org/10.1007/978-3-319-59129-2_37

PDF **Data Descriptor: A multiscale imaging and modelling dataset of the human inner ear**

Gerber, Nicolas ; Reyes, Mauricio ; Barazzetti, Livia ; Kier, Hans Martin ; Vera, Sergio ; Stauber, Martin ; Mistrik, Pavel ; Ceresa, Mario ; Mangado, Nerea ; Wimmer, Wilhelm ; Stark, Thomas ; Paulsen, Rasmus Reinhold ; Weber, Stefan ; Caversaccio, Marco ; Gonzalez Ballester, Miguel A.
in journal: Scientific Data (ISSN: 2052-4463) (DOI: http://dx.doi.org/10.1038/sdata.2017.132), vol: 4, 2017

Type: Journal article (Peer reviewed)

Status: Published | År: 2017 | DOI: http://dx.doi.org/10.1038/sdata.2017.132

2016

PDF **Free-form image registration of human cochlear μCT data using skeleton similarity as anatomical prior**

Kier, Hans Martin ; Fagertun, Jens ; Vera, Sergio ; Gil, Debora ; González Ballester, Miguel Angel ; Paulsen, Rasmus Reinhold
in journal: Pattern Recognition Letters (ISSN: 0167-8655) (DOI: http://dx.doi.org/10.1016/j.patrec.2015.07.017), vol: 76, issue: June, pages: 76-82, 2016

Type: Journal article (Peer reviewed)

Status: Published | År: 2016 | DOI: http://dx.doi.org/10.1016/j.patrec.2015.07.017

Write a mail

- Who you are and where you know the supervisor from
- Which courses have you taken and how did it approximately go
- What du you want to do and why do you ask this supervisor
    - ECTS
    - Project start
    - Bsc/Msc/special course
- Ask:
    - Do you have available projects or suggestions
    - Can we meet?
- It is ok to "shop around" – but not too much and do not skip the project in the last moment

What should I remember

- **Ask or find out of**
  - Is the project a part of a larger research project (+)
  - Is it possible to be co-supervised by a PhD student (++)
  - Is it realistic to write a scientific article (+)
  - What kind of supervision can you expect
  - How much supervision can you expect
  - How many student do the supervisor have
  - Can you get some articles describing the project background
  - Are the necessary data in place and can you get them
  - How much manual work is expected

Non-disclosure agreements

- Be careful!
- Attractive to work with a cool company
- You can not show your work to anyone
  - Not even potential job places

- They will say
  - So cool to work with us – you might be able to get a job

- Be skeptical!

Most important point!

- The grade is solely based on the delivered written work – the report!
  - And the oral defense (which is mostly based on the report)
- No matter how
  - Nice you are
  - Amount of data gathered
  - Manual work done
- It is the documentation of all this that counts!

- You are/will become the expert!

Project start

- **Learn about the topic**
  - Literature search and reading (based on articles supplied by the supervisor)
- **Start a report from day one**
  - Reference manager : Bibtex, Endnote, RefWorks, Mendeley…
- **Write the introduction and problem statement very early**
  - Latest three weeks after project start
  - Serve as a contract between you, the supervisor and external partners
- **Du not start coding/welding/mixing/experimenting**
  - Before your problem statement is clearly written

More info

- http://people.compute.dtu.dk/rapa/supervision.html

Have Fun!

DTU Compute, Technical University of Denmark