

# Welcome to KTH!

**KTH**, the Royal Institute of Technology  
Excellence in Education, Research and Entrepreneurship



ROYAL INSTITUTE  
OF TECHNOLOGY



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Linné FLOW Centre, KTH Mechanics

# KTH's History



ROYAL INSTITUTE  
OF TECHNOLOGY

- 1697** Christopher Polhem's *Laboratorium Mechanicum*
- 1827** Lectures start at the Institute
- 1869** Study programmes in mining and civil engineering
- 1876** The name **Kungliga Tekniska högskolan** is established
- 1917** KTH moves into new buildings at Valhallavägen
- 1921** First regular female student admitted at KTH
- 1927** KTH is awarded the right to confer doctoral degrees
- 1956** Sweden's first female Doctor of Technology graduated from KTH
- 1970** Hannes Alfvén, Professor at KTH, is awarded the Nobel Prize in Physics
- 1986** The College of Engineering is established at KTH
- 2001** AlbaNova, Stockholm's Centre of Physics, Astronomy and Biotechnology
- 2002** The IT University at Kista is inaugurated, a joint venture with Stockholm University
- 2005** A new organisation with Schools

# Undergraduate Programmes 2007

**ALL PROGRAMMES (most are 4.5 YEARS engineering students)**

- 4,087 new admissions; 30% women and 70% men
- A total of approximately 17,000 programme students



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## **INTERNATIONAL PROGRAMMES**

- 45 International Master's Programmes taught in English

## **INTERNATIONAL STUDENT EXCHANGES**

- 338 KTH students travelling to other universities
- 1,057 foreign exchange students began their studies at KTH
- 1,105 international master's students began their studies at KTH

# Postgraduate Studies 2007



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## POSTGRADUATE STUDENTS

- 1,434 active postgraduate students with a minimum of 50% activity; 28% women and 72% men

## DEGREES

- 209 doctoral degrees awarded; 28% to women and 72% to men

# Research 2007



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## NUMBERS OF PROFESSORS

- 259 professors
- 5 part-time consulting professors
- 202 associate professors

## INTERNATIONALLY PUBLISHED MATERIALS

- 1,800 conference contributions (papers, etc.)

## GROWTH AREAS IN FOCUS

- Biotechnology
- Material Science and Engineering
- Information Technology
- Energy and Environment

# Schools

From January 2005



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School of **Architecture and the Built Environment**

School of **Biotechnology**

School of **Computer Science and Communication**

School of **Electrical Engineering**

School of **Industrial Engineering and Management**

School of **Information and Communication Technology**

School of **Chemical Science and Engineering**

School of **Engineering Sciences**

School of **Technology and Health**

**Scientific Information and Learning**

KTH **Business Liaison**



# FLOW

LINNÉ FLOW CENTRE



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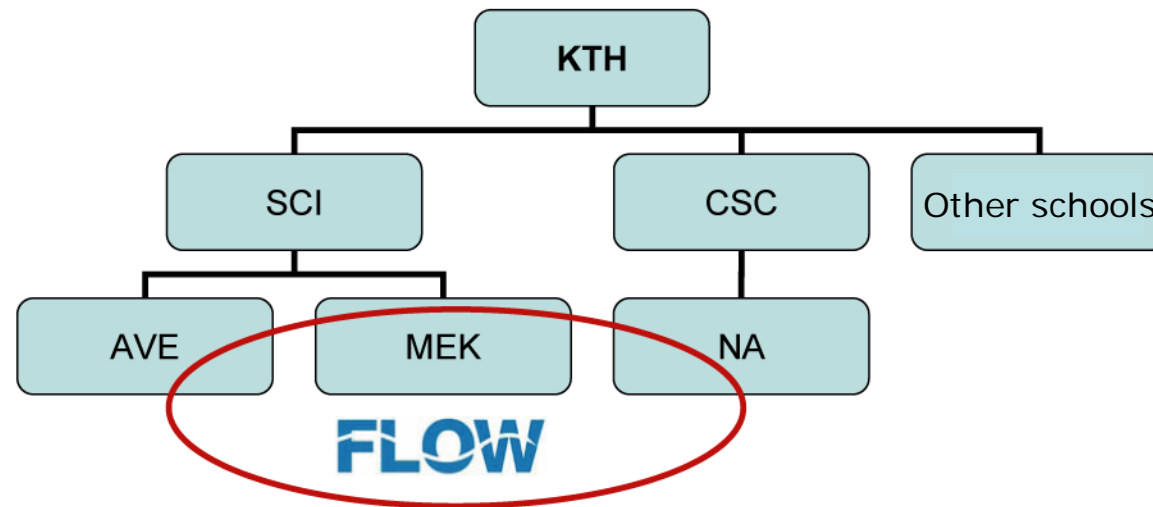


<http://www.flow.kth.se>

# Linné FLOW Centre at KTH



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- Started fall of 2006
- 3 dep: Mechanics, Acoustics and Numerical Analysis
  - 34 PhD-students,
  - 12 junior faculty,
  - 18 senior faculty
  - 4 .5 mill. \$/year



# Linné FLOW Centre



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- **Vision**

*"Flow as an outstanding environment for research in Fluid Mechanics, where innovative research is born and future research leaders are fostered"*

# Research areas

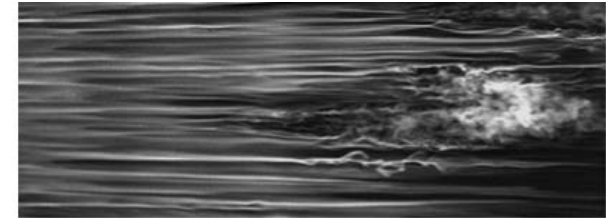
strategies at [www.flow.kth.se/research.html](http://www.flow.kth.se/research.html)



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- **Stability and transition**

*-What makes flows becoming turbulent?*



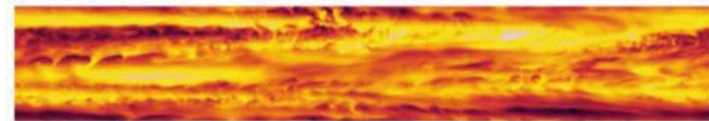
- **Flow control and optimization**

*-How can we manipulate flows to do what we want?*



- **High Reynolds number turbulence and geophysical flows**

*-How does the turbulence in the atmosphere and the ocean behave?*



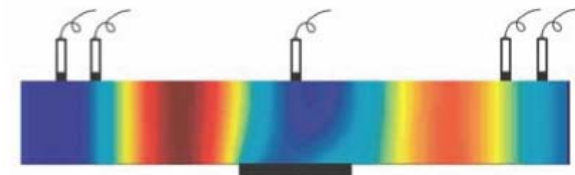
- **Micro- and complex fluids**

*-Why are fibres forming flocs?*



- **Low Mach-number aeroacoustics**

*-How does turbulence generate noise?*



# Academic Year (40 weeks)



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