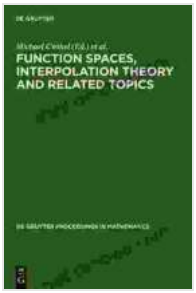
Proceedings Of The International Conference In Honour Of Jaak Peetre On His 80th Birthday

This volume contains the proceedings of the International Conference in Honour of Jaak Peetre on his 80th birthday, which was held at the University of Lund, Sweden, on August 28–30, 2006. The conference brought together leading experts in analysis and partial differential equations to celebrate Jaak Peetre's outstanding contributions to mathematics.

Peetre is one of the most influential analysts of the twentieth century. His work has had a profound impact on many areas of mathematics, including interpolation theory, harmonic analysis, potential theory, and partial differential equations. He is best known for his fundamental work on Sobolev spaces, which are now widely used in the study of partial differential equations.

The conference featured a series of invited talks by leading experts in analysis and partial differential equations. The talks covered a wide range of topics, including interpolation theory, harmonic analysis, potential theory, partial differential equations, and numerical analysis.



Function Spaces, Interpolation Theory and Related Topics: Proceedings of the International Conference in honour of Jaak Peetre on his 65th birthday. Lund, ... (De Gruyter Proceedings in Mathematics) by Gianluca Fusai

4.2 out of 5

Language	: English
File size	: 5927 KB
Screen Reader	: Supported

Print length : 472 pages
X-Ray for textbooks : Enabled

In addition to the invited talks, the conference also included a poster session. The poster session gave young researchers an opportunity to present their work to the conference participants.

The conference was a great success. It was a wonderful opportunity to celebrate Jaak Peetre's outstanding contributions to mathematics and to bring together leading experts in analysis and partial differential equations.

The following is a list of the invited speakers at the conference:

- Carlos Kenig, University of Chicago
- Sergiu Klainerman, Princeton University
- Pierre-Louis Lions, Université Paris-Dauphine
- Vladimir Maz'ya, Linköping University
- Michael Melgaard, University of Copenhagen
- Terence Tao, University of California, Los Angeles
- Neil Trudinger, Australian National University
- Juan Luis Vázquez, Universidad Autónoma de Madrid

The scientific program of the conference was as follows:

Monday, August 28

- 9:00-9:30: Opening ceremony
- 9:30-10:30: Invited talk by Carlos Kenig
- 10:30-11:00: Coffee break
- 11:00-12:00: Invited talk by Sergiu Klainerman
- 12:00-13:00: Lunch
- 13:00-14:00: Invited talk by Pierre-Louis Lions
- 14:00-14:30: Coffee break
- 14:30-15:30: Invited talk by Vladimir Maz'ya
- 15:30-16:30: Poster session

Tuesday, August 29

- 9:00-10:00: Invited talk by Michael Melgaard
- 10:00-10:30: Coffee break
- 10:30-11:30: Invited talk by Terence Tao
- 11:30-12:30: Invited talk by Neil Trudinger
- 12:30-13:30: Lunch
- 13:30-14:30: Invited talk by Juan Luis Vázquez
- 14:30-15:00: Coffee break
- 15:00-16:00: Panel discussion on the future of analysis and partial differential equations

Wednesday, August 30

- 9:00-10:00: Invited talk by Carlos Kenig
- 10:00-10:30: Coffee break
- 10:30-11:30: Invited talk by Sergiu Klainerman
- 11:30-12:30: Invited talk by Pierre-Louis Lions
- 12:30-13:30: Lunch
- 13:30-14:30: Closing ceremony

The following are the abstracts of the invited talks given at the conference:

Carlos Kenig: The Calderón-Zygmund decomposition for vector-valued functions

The Calderón-Zygmund decomposition is a fundamental tool in harmonic analysis. It allows us to decompose a function into a sum of three functions: a smooth function, a singular function, and a remainder function. The smooth function is the part of the function that is well-behaved, the singular function is the part of the function that is concentrated on a set of measure zero, and the remainder function is the part of the function that is small in a certain sense.

In this talk, Kenig will discuss the Calderón-Zygmund decomposition for vector-valued functions. He will show how this decomposition can be used to study a variety of problems in harmonic analysis and partial differential equations.

Sergiu Klainerman: The nonlinear wave equation in high dimensions

The nonlinear wave equation is a fundamental equation in mathematical physics. It describes the propagation of waves in a variety of physical systems, including water waves, sound waves, and light waves.

In this talk, Klainerman will discuss the nonlinear wave equation in high dimensions. He will show how this equation can be used to study a variety of problems in general relativity, including the formation of black holes and the propagation of gravitational waves.

Pierre-Louis Lions: Some recent advances in the theory of partial differential equations

In this talk, Lions will discuss some recent advances in the theory of partial differential equations. He will focus on three topics: the regularity of solutions to nonlinear elliptic equations, the asymptotic behavior of solutions to nonlinear parabolic equations, and the homogenization of nonlinear periodic equations.

Vladimir Maz'ya: Sobolev spaces on fractal sets

Sobolev spaces are fundamental function spaces that are used in the study of partial differential equations. They are defined as the spaces of functions that have a certain number of derivatives and that are square-integrable.

In this talk, Maz'ya will discuss Sobolev spaces on fractal sets. He will show how these spaces can be used to study a variety of problems in partial differential equations on fractal sets.

Michael Melgaard: Interpolation theory and applications to partial differential equations

Interpolation theory is a branch of mathematics that studies the relationship between different function spaces. It is used to study a variety of problems in analysis and partial differential equations.

In this talk, Melgaard will discuss interpolation theory and applications to partial differential equations. He will show how interpolation theory can be used to study a variety of problems in partial differential equations, including existence and uniqueness of solutions, regularity of solutions, and asymptotic behavior of solutions.

Terence Tao: Recent progress on the Navier-Stokes equations

The Navier-Stokes equations are a fundamental system of partial differential equations that describe

Function Spaces, Interpolation Theory and Related Topics: Proceedings of the International Conference in honour of Jaak Peetre on his 65th birthday. Lund, ... (De Gruyter Proceedings in Mathematics) by Gianluca Fusai

4.2 out of 5

Language	: English
File size	: 5927 KB
Screen Reader	: Supported
Print length	: 472 pages
X-Ray for textbooks	: Enabled

Uncover the Secrets of Cinematic Storytelling with "Knew The Poetic Screenplay Sanders"

Embark on a Transformative Journey into the Art of Screenwriting Immerse yourself in the captivating world of screenwriting with "Knew The Poetic Screenplay Sanders," a...

Abdus Salam: The First Muslim Nobel Scientist

In the annals of scientific history, few names shine as brightly as that of Abdus Salam. Born in Jhang, Pakistan in 1926,...