

BOOK REVIEW

Hilbert Spaces: Properties and Applications

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“Hilbert Spaces: Properties and Applications” is a careful selection of topics within the scope of Hilbert spaces, covering issues related to its properties and applications.

In this way, after treating in a very generalized and complete way some points of view on convex sets, projections and orthogonality, the book evolves towards the treatment of smooth solutions, with regard to the stability and controllability of various classes of differential equations, in Hilbert spaces, also taking into account their applications.

It also considers Hilbert's extended space, including Hilbert's hyper-complex space, Bargmann-Hilbert space, and Hilbert's enlarged space. It also features a reduced Hilbert space dedicated to Hamiltonian models. It also deals with applications of these varied spaces in the scope of mathematics and physics.

In this way, “Hilbert Spaces: Properties and Applications” bestows an overview upon readers of Hilbert's modern theory of spaces, covering all its complexity and fruitfulness of applications.

Edited and written by renowned experts, this book is a very pleasant reading text, not giving in to any facilities with regard to the rigor of the exposition.

The text is remarkable both from a scientific and pedagogical point of view. It is organized in such a way that the first chapters form the basis for the following, linked together as if it were a construction that is based on the foundations and evolves to the roof.

As highlighted in foregoing, the book is accessible to graduate students and functioning as a reference for academics. Also interesting for curious and informed readers. Definitely, a work that deserves reading.

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