Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies)

Isroil A. Ikromov, Detlef Müller

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies)

Isroil A. Ikromov, Detlef Müller

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) Isroil A. Ikromov, Detlef Müller

This is the first book to present a complete characterization of Stein-Tomas type Fourier restriction estimates for large classes of smooth hypersurfaces in three dimensions, including all real-analytic hypersurfaces. The range of Lebesgue spaces for which these estimates are valid is described in terms of Newton polyhedra associated to the given surface.

Isroil Ikromov and Detlef Müller begin with Elias M. Stein's concept of Fourier restriction and some relations between the decay of the Fourier transform of the surface measure and Stein-Tomas type restriction estimates. Varchenko's ideas relating Fourier decay to associated Newton polyhedra are briefly explained, particularly the concept of adapted coordinates and the notion of height. It turns out that these classical tools essentially suffice already to treat the case where there exist linear adapted coordinates, and thus Ikromov and Müller concentrate on the remaining case. Here the notion of r-height is introduced, which proves to be the right new concept. They then describe decomposition techniques and related stopping time algorithms that allow to partition the given surface into various pieces, which can eventually be handled by means of oscillatory integral estimates. Different interpolation techniques are presented and used, from complex to more recent real methods by Bak and Seeger.

Fourier restriction plays an important role in several fields, in particular in real and harmonic analysis, number theory, and PDEs. This book will interest graduate students and researchers working in such fields.

Download and Read Free Online Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) Isroil A. Ikromov, Detlef Müller

---

From reader reviews:

Paula Mendoza:

The actual book Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) will bring someone to the new experience of reading some sort of book. The author style to describe the idea is very unique. In the event you try to find new book to learn, this book very suited to you. The book Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) is much recommended to you you just read. You can also get the e-book in the official web site, so you can quickly to read the book.

Federico Crouch:

The book untitled Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) contain a lot of information on that. The writer explains your ex idea with easy approach. The language is very clear and understandable all the people, so do not necessarily worry, you can easy to read it. The book was written by famous author. The author provides you in the new age of literary works. You can easily read this book because you can read more your smart phone, or gadget, so you can read the book inside anywhere and anytime. In a situation you wish to purchase the e-book, you can open up their official web-site and order it. Have a nice study.

Hilary Williams:

You may spend your free time to read this book this e-book. This Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) is simple to bring you can read it in the park, in the beach, train and also soon. If you did not have much space to bring often the printed book, you can buy typically the e-book. It is make you quicker to read it. You can save the particular book in your smart phone. Thus there are a lot of benefits that you will get when one buys this book.

Harrison Colon:

This Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) is completely new way for you who has curiosity to look for some information mainly because it relief your hunger info. Getting deeper you into it getting knowledge more you know or else you who still having little digest in reading this Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) can be the light food for yourself because the information inside this book is easy to get by simply anyone. These books build itself in the form which can be reachable by anyone, yes I mean in the e-book form. People who think that in publication form make them feel tired even dizzy this guide is the answer. So you cannot find any in reading a publication especially this one. You can find what you are looking for. It should be here for a person. So , don't miss this! Just read this e-book kind for your better life in addition to knowledge.

Download and Read Online Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) Isroil A. Ikromov, Detlef Müller #BLKF53D06M8

Read Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller for online ebook

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller books to read online.

Online Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller ebook PDF download

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller Doc

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller Mobipocket

Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) by Isroil A. Ikromov, Detlef Müller EPub