



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

*Isroil A. Ikromov, Detlef Müller*

Download now

[Click here](#) if your download doesn't start automatically

# 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 Fourier Restriction for Hypersurfaces in Three Dim ...pdf](#)

 [Read Online Fourier Restriction for Hypersurfaces in Three D ...pdf](#)

## **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:**

#### **Angela Heller:**

Information is provisions for those to get better life, information today can get by anyone from everywhere. The information can be a expertise or any news even an issue. What people must be consider while those information which is inside the former life are challenging be find than now is taking seriously which one works to believe or which one the particular resource are convinced. If you get the unstable resource then you have it as your main information we will see huge disadvantage for you. All those possibilities will not happen with you if you take Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) as the daily resource information.

#### **Ryan Calhoun:**

Hey guys, do you would like to finds a new book to see? May be the book with the headline Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) suitable to you? Typically the book was written by renowned writer in this era. The particular book untitled Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies)is one of several books that will everyone read now. That book was inspired a number of people in the world. When you read this guide you will enter the new dimensions that you ever know prior to. The author explained their strategy in the simple way, and so all of people can easily to know the core of this e-book. This book will give you a lot of information about this world now. So that you can see the represented of the world with this book.

#### **Rosa Crowe:**

Beside this particular Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) in your phone, it could give you a way to get more close to the new knowledge or info. The information and the knowledge you might got here is fresh from oven so don't become worry if you feel like an old people live in narrow village. It is good thing to have Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) because this book offers for your requirements readable information. Do you occasionally have book but you rarely get what it's facts concerning. Oh come on, that will not happen if you have this in the hand. The Enjoyable set up here cannot be questionable, like treasuring beautiful island. Use you still want to miss the item? Find this book along with read it from now!

#### **Charles Bryce:**

This Fourier Restriction for Hypersurfaces in Three Dimensions and Newton Polyhedra (AM-194) (Annals of Mathematics Studies) is brand-new way for you who has fascination to look for some information mainly because it relief your hunger of knowledge. Getting deeper you in it getting knowledge more you know or else you who still having bit of 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 you personally because the information inside this particular book is easy to get by simply anyone. These books create itself in the form which can be reachable by anyone, yeah I mean in the e-book type. People who think that in reserve form make them feel tired even dizzy this publication is the answer. So there is absolutely no in reading a e-book especially this one. You can find what you are looking for. It should be here for an individual. So , don't miss it! Just read this e-book style for your better life as well as 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  
#V1S76UYQ4NL**

## **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**