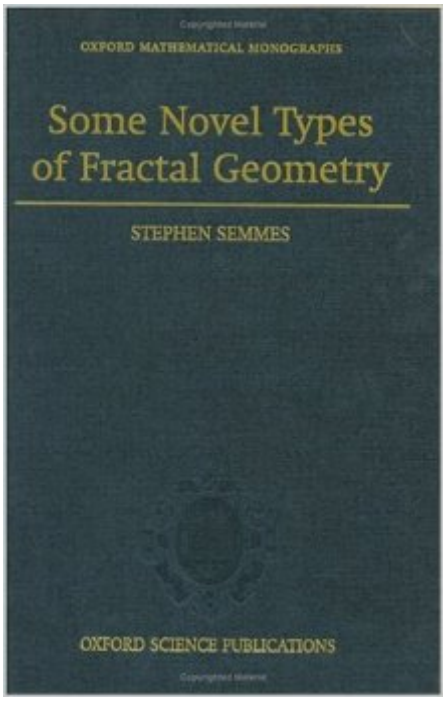
Some Novel Types Of Fractal Geometry (Oxford Mathematical Monographs)



Synopsis

This book deals with fractal geometries that have features similar to ones of ordinary Euclidean spaces, while at the same time being quite different from Euclidean spaces.. A basic example of this feature considered is the presence of Sobolev or PoincarÃ© inequalities, concerning the relationship between the average behavior of a function and the average behavior of its small-scale oscillations. Remarkable results in the last few years through Bourdon-Pajot and Laakso have shown that there is much more in the way of geometries like this than have been realized, only examples related to nilpotent Lie groups and Carnot metrics were known previously. On the other had, 'typical' fractals that might be seen in pictures do not have these same kinds of features. This text examines these topics in detail and will interest graduate students as well as researchers in mathematics and various aspects of geometry and analysis.

Book Information

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Customer Reviews

Well, one reason is this is a book on fractal geometrywith zero pictures...This book went over everyone's head, I think.The concept of BPI (big pieces of itself) spaces is central to this bookand no real concrete example is given or illustrated.From there on (page 34) most people and me are lost (more than they areby Hausdorff spaces, for example).The area of fractals always needs new ideas and fundamentalresearch, but this approach of theorems based on akind of space that isn't clearly explained or shownin graphic examples just doesn't work even for the hard core math types.I

think that is a shame, because there just might be somethinghere worth making pictures of if it could be understood.