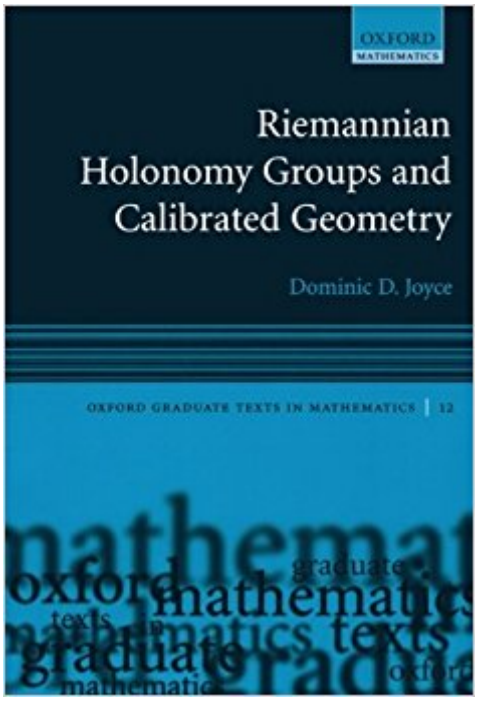
Riemannian Holonomy Groups And Calibrated Geometry (Oxford Graduate Texts In Mathematics)



Synopsis

This graduate level text covers an exciting and active area of research at the crossroads of several different fields in Mathematics and Physics. In Mathematics it involves Differential Geometry, Complex Algebraic Geometry, Symplectic Geometry, and in Physics String Theory and Mirror Symmetry. Drawing extensively on the author's previous work, the text explains the advanced mathematics involved simply and clearly to both mathematicians and physicists. Starting with the basic geometry of connections, curvature, complex and KÃ¤hler structures suitable for beginning graduate students, the text covers seminal results such as Yau's proof of the Calabi Conjecture, and takes the reader all the way to the frontiers of current research in calibrated geometry, giving many open problems.

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Customer Reviews

This graduate level text covers an exciting and active area of research at the crossroads of several different fields in mathematics and physics. * L'enseignement Mathematique * --This text refers to the Hardcover edition.

Dominic Joyce came up to Oxford University in 1986 to read Mathematics. He held an E.P.S.R.C. Advanced Research Fellowship from 2001-2006, was recently promoted to professor, and now leads a research group in Homological Mirror Symmetry. His main research areas so far have been

compact manifolds with the exceptional holonomy groups G_2 and Spin(7), and special Lagrangian submanifolds, a kind of calibrated submanifold. He is married, with two daughters.

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