Record Nr. UNINA9910254061303321 Autore Jones Gareth A **Titolo** Dessins d'enfants on Riemann surfaces / / by Gareth A. Jones, Jürgen Wolfart Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2016 **ISBN** 3-319-24711-5 Edizione [1st ed. 2016.] Descrizione fisica 1 online resource (264 p.) Collana Springer Monographs in Mathematics, , 1439-7382 510 Disciplina Soggetti Algebraic geometry Group theory Functions of complex variables Hyperbolic geometry Algebraic Geometry **Group Theory and Generalizations** Functions of a Complex Variable Several Complex Variables and Analytic Spaces Hyperbolic Geometry Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Includes bibliographical references and index. Nota di bibliografia Historical and introductory background -- Graph embeddings --Nota di contenuto Dessins and triangle groups -- Galois actions -- Quasiplatonic surfaces, and automorphisms -- Regular maps -- Regular embeddings of complete graphs -- Wilson operations -- Further examples --Arithmetic aspects -- Beauville surfaces. Sommario/riassunto This volume provides an introduction to dessins d'enfants and embeddings of bipartite graphs in compact Riemann surfaces. The first part of the book presents basic material, guiding the reader through the current field of research. A key point of the second part is the interplay between the automorphism groups of dessins and their Riemann surfaces, and the action of the absolute Galois group on dessins and their algebraic curves. It concludes by showing the links between the theory of dessins and other areas of arithmetic and

geometry, such as the abc conjecture, complex multiplication and

Beauville surfaces. Dessins d'Enfants on Riemann Surfaces will appeal to graduate students and all mathematicians interested in maps, hypermaps, Riemann surfaces, geometric group actions, and arithmetic.