1. Record Nr. UNINA9910337611603321 Autore Quartara Andrea **Titolo** Computational and Manufacturing Strategies: Experimental Expressions of Wood Capabilities / / by Andrea Quartara, Djordje Stanojevic Singapore:,: Springer Singapore:,: Imprint: Springer,, 2019 Pubbl/distr/stampa **ISBN** 981-10-8830-6 Edizione [1st ed. 2019.] Descrizione fisica 1 online resource (111 pages) Collana SpringerBriefs in Architectural Design and Technology, , 2199-580X Disciplina 670.285 Soggetti Buildings—Design and construction Buildina Construction Engineering, Architectural Structural materials Regional planning Urban planning Engineering design Computer-aided engineering **Building Construction and Design** Structural Materials Landscape/Regional and Urban Planning **Engineering Design** Computer-Aided Engineering (CAD, CAE) and Design Lingua di pubblicazione Inglese **Formato** Materiale a stampa

Livello bibliografico

Monografia

Sommario/riassunto

This book highlights computationally enabled and digitally fabricated strategies used in the design of a series of full-size wooden structures. It introduces theoretical foundations and then focuses on the possibilities that have emerged as a result of the material-aware processes. The case studies expound wood as one of the most suitable materials to experience the seamless framework introduced with the

digital design-to-construction chain. Two main aspects of the pavilions constructed, developed in various international academic groups, are considered. On one hand the case studies explore tolerances of raw and engineered material intertwined with machine processing; they also address material enhancement through strip applications in timber construction. In addition, the structures are examined in the light of an extensible designing path, which acts as an interoperable procedure, bridging the virtual and the real.