

|                         |  |
|-------------------------|--|
| 1. Record Nr.           | UNINA9910366586603321  |
| Autore                  | Gan Buntara Sthenly  |
| Titolo                  | Computational Modeling of Tensegrity Structures : Art, Nature, Mechanical and Biological Systems // by Buntara Sthenly Gan   |
| Pubbl/distr/stampa      | Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020  |
| ISBN                    | 3-030-17836-6  |
| Edizione                | [1st ed. 2020.]  |
| Descrizione fisica      | 1 online resource (219 pages)  |
| Disciplina              | 720.4<br>624.171   |
| Soggetti                | Statics<br>Mechanics<br>Mechanics, Applied<br>Applied mathematics<br>Engineering mathematics<br>Biomedical engineering<br>Mechanical Statics and Structures<br>Solid Mechanics<br>Mathematical and Computational Engineering<br>Biomedical Engineering and Bioengineering  |
| Lingua di pubblicazione | Inglese  |
| Formato                 | Materiale a stampa   |
| Livello bibliografico   | Monografia   |
| Nota di contenuto       | Introduction to Tensegrity Structures -- Analyses of Tensegrity Structures -- Computational Modeling of Tensegrity Structures -- Form-Finding of Tensegrity Structures -- Designing Tensegrity Structures Various Tensegrity Structures -- Tensegrity Structures in Biology -- The Latest Applications of Tensegrity Structures -- Appendixes. |
| Sommario/riassunto      | This book provides an in-depth, numerical investigation of tensegrity systems from a structural point of view, using the laws of fundamental mechanics for general pin-jointed systems with self-stressed mechanisms. Tensegrity structures have been known for decades, mostly as an art of form for monuments in architectural design. In    |

Computational Modeling of Tensegrity Structures, Professor Buntara examines these formations, integrating perspectives from mechanics, robotics, and biology, emphasizing investigation of tensegrity structures for both inherent behaviors and their apparent ubiquity in nature. The author offers numerous examples and illustrative applications presented in detail and with relevant MATLAB codes. Combining a chapter on the analyses of tensegrity structures along with sections on computational modeling, design, and the latest applications of tensegrity structures, the book is ideal for R&D engineers and students working in a broad range of disciplines interested in structural design.

---