

Summary and Author Biography

Summary

In *Mechanics and Relativity*, the reader is taken on a tour through time and space. Starting from the basic axioms formulated by Newton and Einstein, the theory of motion at both the everyday and the highly relativistic level is developed without the need of prior knowledge. The relevant mathematics is provided in an appendix. The text contains various worked examples and a large number of original problems to help the reader develop an intuition for the physics. Applications covered in the book span a wide range of physical phenomena, including rocket motion, spinning tennis rackets and high-energy particle collisions.

About the Author

Dr. **T. (Timon) Idema** is an associate professor at the Department of Bionanoscience at Delft University of Technology (TU Delft) in The Netherlands. Before starting his research group in Delft in 2012, Idema obtained his PhD in theoretical biophysics at Leiden University (The Netherlands) and worked at the Institut Curie (Paris, France) and the University of Pennsylvania (Philadelphia, USA).

Idema's group studies collective dynamics in biologically motivated systems, ranging from proteins at the nano scale to tissues and even populations at the micro- and macro scale. A theorist himself, Idema frequently collaborates and co-publishes with experimental groups. He also teaches a number of courses at TU Delft, ranging from introductory physics to courses on soft matter and geometry that take students to the cutting edge of current research. For more details on his group's research and teaching activities, visit their website at idemalab.tudelft.nl.