CENTER FOR COMPUTATION & TECHNOLOGY

Interdisciplinary | Innovative | Inventive

LOUISIANA STATE UNIVERSITY

Search

The Shapes of Things: New Geometry Book Published by LSU Mathematician

News

Press Releases
Event Announcements
CCT Weekly
Grants and Funding
Student News
Archived News

LSU Media Center

BATON ROUGE - A book on differential geometry by LSU Assistant Professor of Mathematics Shawn W. Walker, who holds a joint appointment at the Center for Computation and Technology, was recently published. "The Shapes of Things: A Practical Guide to Differential Geometry and the Shape Derivative" provides clear geometric formulas that can be used to understand mathematical models that contain geometric differential equations, or PDEs.

Walker researches PDEs for fluids and free or moving boundaries as they pertain to geometric evolution problems as well as numerical analysis and finite element methods, mesh generation and optimal PDE control of shape.

"The Shapes of Things" is a reference book that may be helpful for students and scientists using surface geometry and shape optimization in their work.

The book was derived from Walker's lecture notes, which he created and refined while teaching a special topics course at LSU in 2011.

"Eventually, after sharing the notes I realized their potential value to others and sought to create this book to make shape derivatives accessible to a broader audience," wrote Walker in the book's preface.

 The book was published by SIAM, the Society for Industrial and Applied Mathematics.

 Additional Link:

"The Shapes of Things: A Practical Guide to Differential Geometry and the Shape Derivative" http://bookstore.siam.org/dc28/

Contact Alison Satake
LSU Media Relations
225-578-3870
asatake@lsu.edu

Publish Date:
07-08-2015