Recent Advances in Computing: Advanced Computational Geometry Algorithms
Summer 2009

Computational geometry deals with collections of geometric objects, usually in plane or space. This course will introduce students to geometric algorithms and data structures. Computational Geometry algorithms and data structures are used in many areas, including databases (range searching), sensor networks (routing, localization), visualization, Geographic Information Systems (GIS), VLSI, robotics, computer graphics, computer vision, computer games, and structural proteomics.

The course is recommended to graduate students who are interested in getting a better understanding about doing research and would like to prospect various research areas before deciding on one. The material of the course will be tailored to the interests of the participants.

The course is self contained (no prerequisites are required). We will read and discuss papers, and make class presentations. The grade will be based on class participation, presentations, and answers to questions.

There is no official textbook for this course. The information will be disseminated by presentations and a collection of tutorial papers that will be made available in class.

Instructor:

Ovidiu Daescu, Associate Professor
Office: ECS 4.224
Telephone: 972-883-4196
http://www.utdallas.edu/∼daescu
e-mail: daescu@utdallas.edu