



## Call for Participation

# Graph Drawing Contest 2011

<http://www.graphdrawing.de/contest2011>

The 18th Annual Graph Drawing Contest shall be held in conjunction with the 19th International Symposium on Graph Drawing (GD 2011). Except for the challenge competition, which takes place during the conference, all submissions are due by **September 19, 2011** (23:59 CET).

This year, the contest has the following three topics: angular resolution (two categories), a composers graph, and the graph drawing challenge (two categories). Cash prizes and medals will be given to the top finishers in each of the five categories.

### Angular resolution

The focus in the angular resolution topic will be on drawings that attempt to maximize angular resolution at the vertices and crossing points while still preserving, as much as possible, other aesthetic criteria such as planarity, vertex and bend resolution, and symmetry. The overall judgment is still purely for visual aesthetics where all criteria weigh in but where good angular resolution has a heavier weight. The topic is further divided into two categories. The first category requires the rendering of an undirected planar graph as a straight-line crossing-free drawing. The second category requires the rendering of an undirected non-planar graph with arcs, bends, and crossings allowed.

### Composers graph

contributed by Tom Sawyer Software

The composers graph is a large directed graph, where the nodes represent Wikipedia articles about composers, and the edges represent links between these articles. The graph has too many nodes and edges to be effectively presented in a straightforward way. The task is to combine graph drawing algorithms with appropriate techniques for complexity reduction (such as filtering and varying the graphical attributes) to create an illuminating visualization (one or more images, possibly with commentaries, or a movie). It is by no means a requirement to present the entire data set.

## Submissions

Submissions for the composers graph and the angular resolution tasks must be received by **September 19, 2011** (23:59 Central European Time) and should include the following information:

- **names** and **email** addresses of the contributors,
- a picture illustrating the graph, and
- a brief description **on how the layout was produced**.

Electronic submissions are strongly encouraged. However, if your drawing requires special printing because of size, resolution, or color constraints, you are encouraged to submit via hard-copy. Acceptable electronic formats include PDF and PostScript for images.

All contest submissions should be sent to

Carsten Gutwenger  
Otto-Hahn-Str. 14  
44227 Dortmund, Germany

[contest@graphdrawing.de](mailto:contest@graphdrawing.de)

## Graph drawing challenge

The challenge will be held during the conference in a format similar to a typical programming contest, where teams are presented with a collection of challenge graphs and have approximately one hour to submit their highest scoring drawings. This year the challenge shall focus **on minimizing the length of the longest edge in an orthogonal layout**. The longest edge can be a bottleneck for many applications, hence minimizing its length is important.

There exist two categories in the challenge that are judged separately.

- **Automatic:** This category is for teams using their own tool. Since we assume that the tool contains special algorithms to solve the challenge automatically, these teams will receive larger challenge graphs. Manual fine-tuning is allowed.
- **Manual:** This category is for teams using the provided graph editor. The graph editor does not contain any specific algorithm to solve the challenge. It allows one only to move nodes and to re-route edges. This category is for creating manual solutions without help of an automatic algorithm. Teams in this category will receive smaller challenge graphs.

## Contest Committee

### Christian Duncan

Louisiana Tech University

### Carsten Gutwenger, chair

TU Dortmund

### Lev Nachmanson

Microsoft, Redmond

### Georg Sander

IBM, Bad Homburg