Università della Svizzera italiana | Institute of Computational Science ICS

Numerical Computing   **2020**

Student: FULL NAME   Discussed with: FULL NAME

Solution for Project 4   Due date: Wednesday, 18 November 2020, 11:55 PM

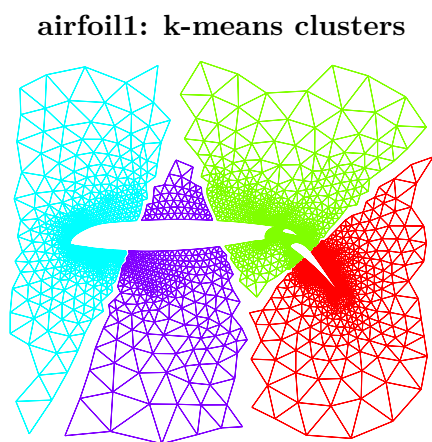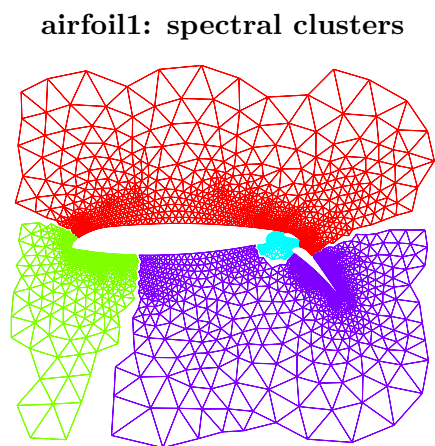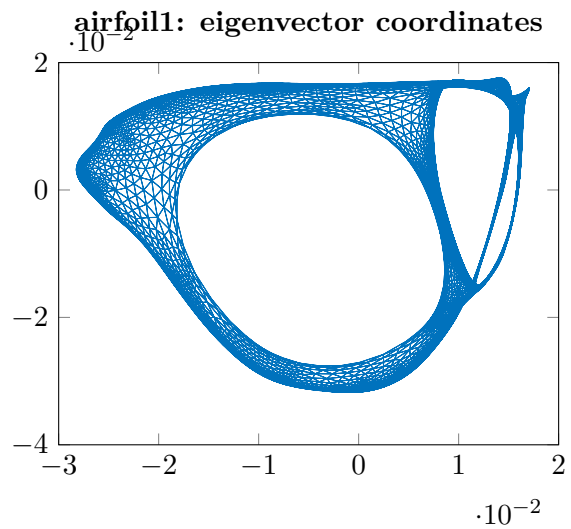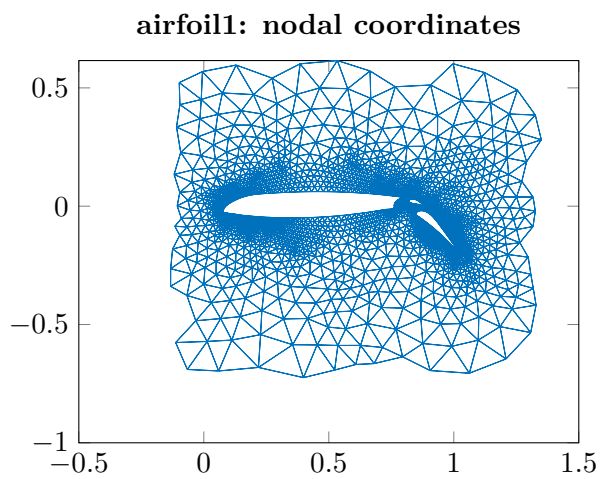1. **Spectral clustering of non-convex sets [60 points]:**

2. **Spectral clustering of real-world graphs [40 points]:**

Figure 1: Graphs for *Airfoil1*

barth: nodal coordinates

barth: eigenvector coordinates

barth: spectral clusters

barth: k-means clusters
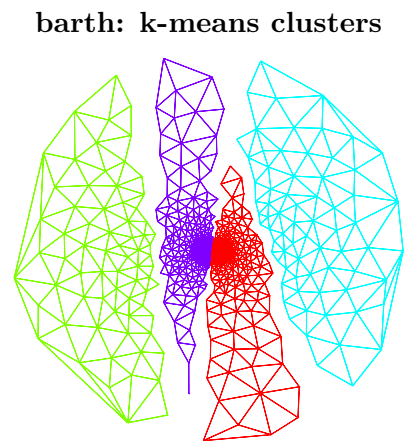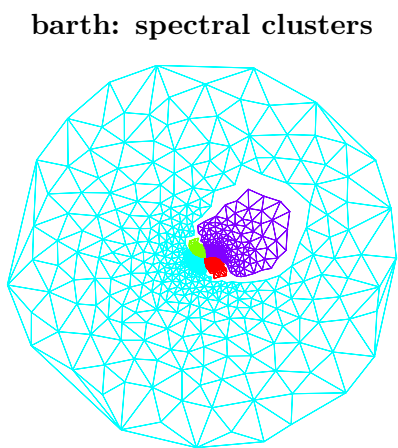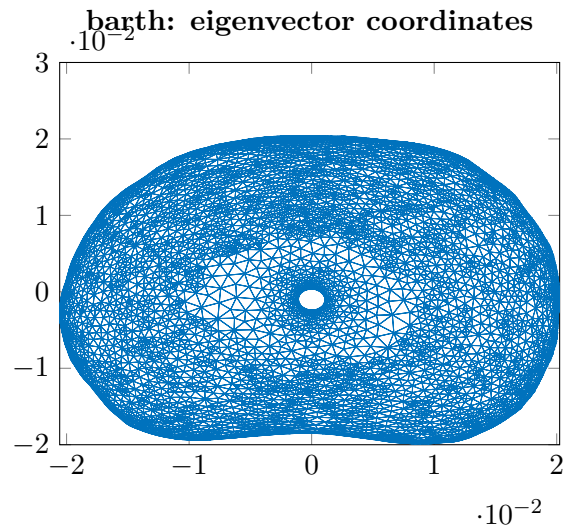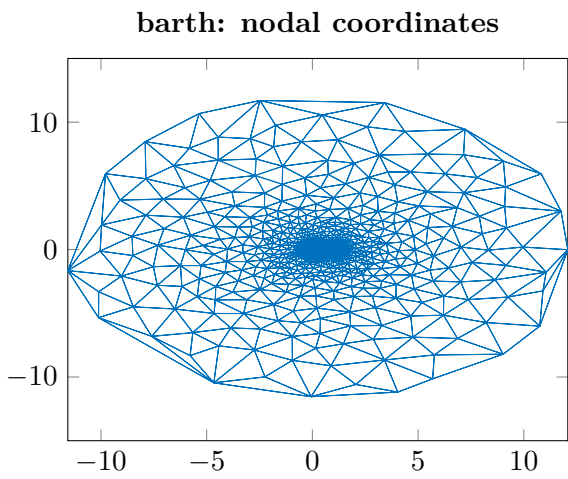
Figure 2: Graphs for *Barth*

grid2: nodal coordinates

grid2: eigenvector coordinates
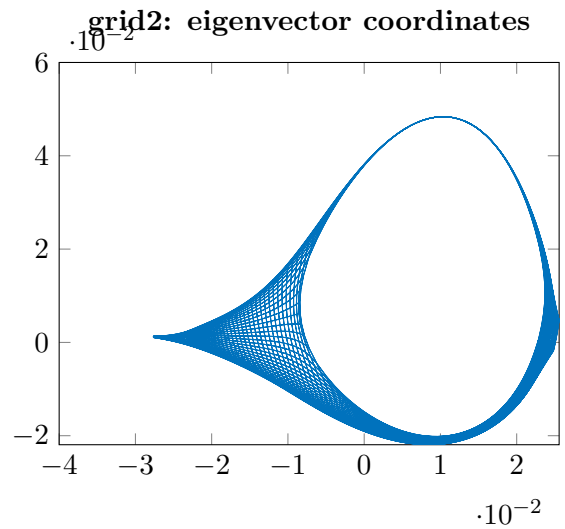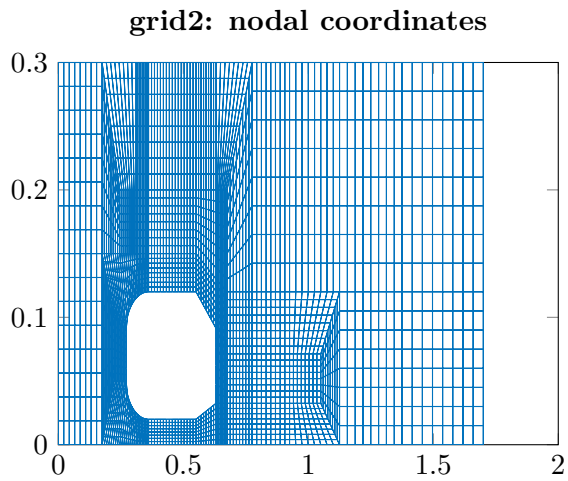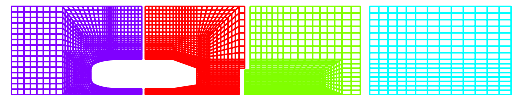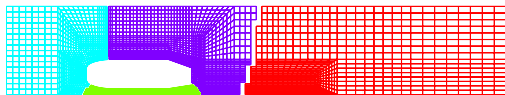
grid2: spectral clusters

grid2: k-means clusters

Figure 3: Graphs for *Grid2*

3elt: nodal coordinates

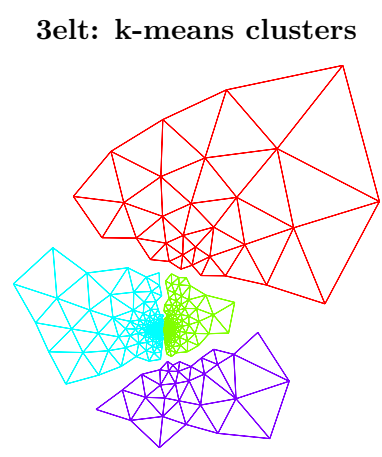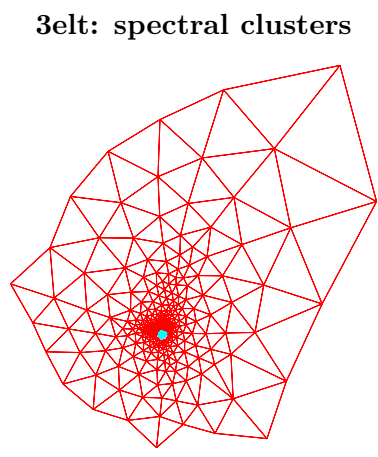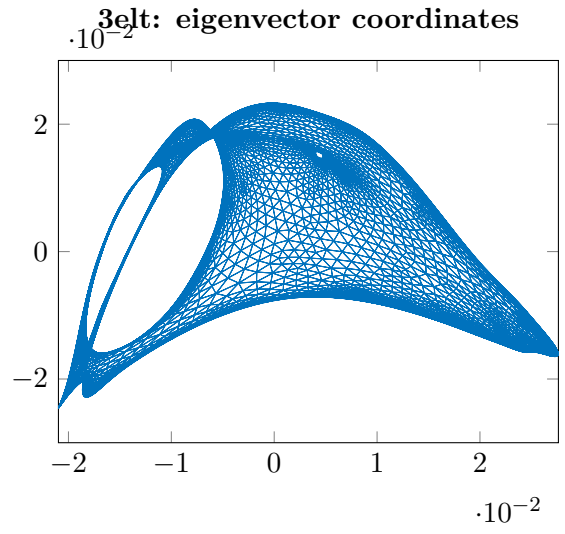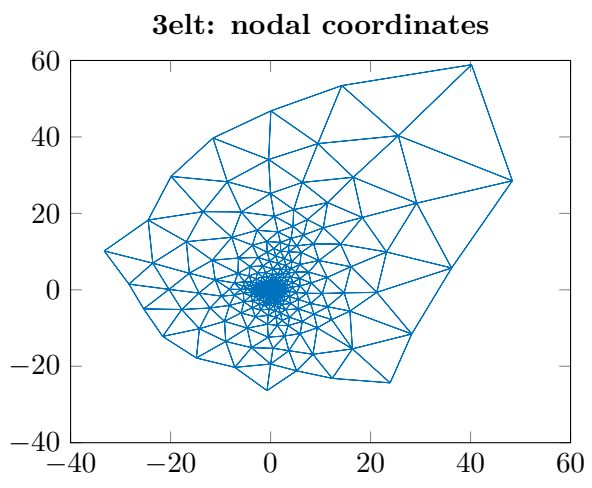**3elt: eigenvector coordinates**

3elt: spectral clusters

3elt: k-means clusters

Figure 4: Graphs for *3elt*