

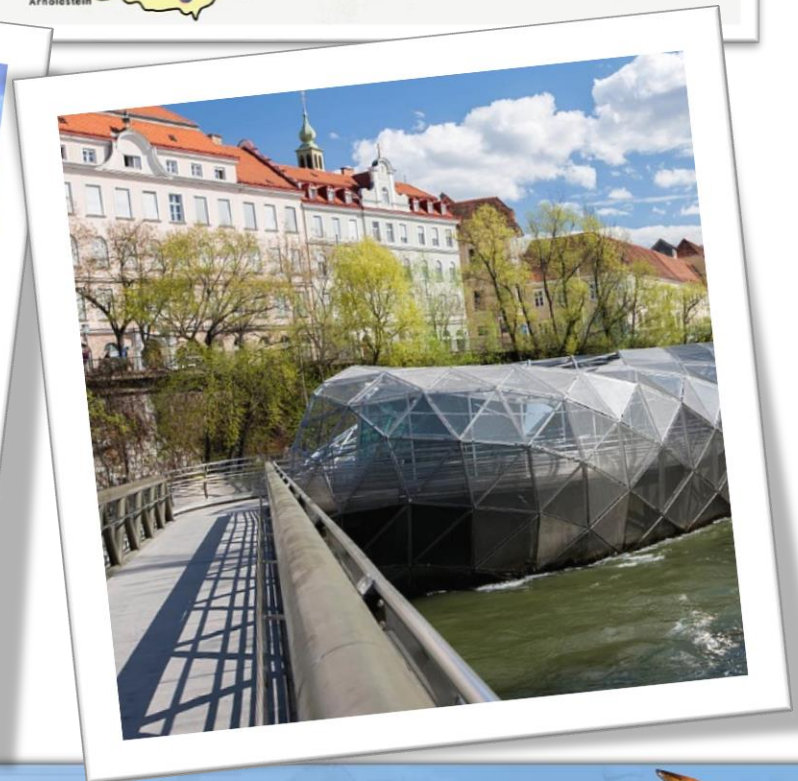
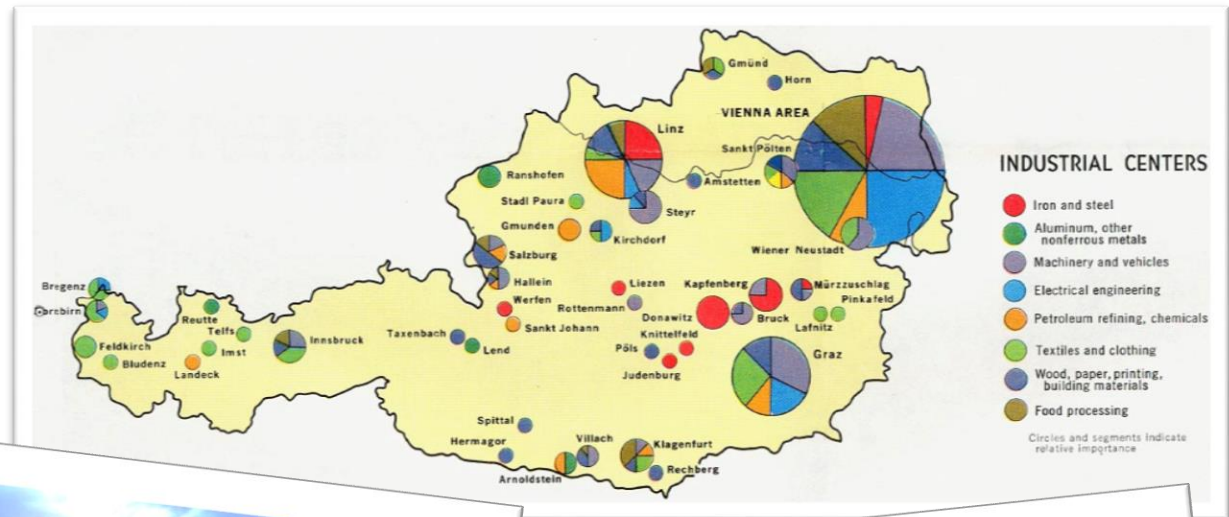
Toward Multimodal Interaction of Scatterplot Spaces Exploration

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Graz



Members of CGV

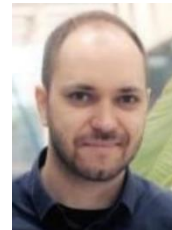
- **Directors**

- Prof. Dr. D. Fellner (head)
- Prof. Dr. T. Schreck (deputy head)
- Ass.Prof. Dr. U. Augsdörfer (deputy head)



- **Research and Teaching Staff**

- Dr. Reinhold Preiner (new in 2017!)
- Mohammad Chegini (new in 2017!)
- Andreas Riffnaller-Schiefer
- Lin Shao



- **Associated members**

- Priv.-Doz. Dr. Sven Havemann (ICEMSurf/Dassault, Guest Lecturer)
- Johannes Edelsbrunner (ext. PhD student)
- Robert Gregor (ext. PhD student)
- Wolfgang Thaller (ext. PhD student)
- Nelson Silva (ext. PhD student)



- **Infrastructure and System Administration**

- Ingrid Preininger (Sekretariat)
- Lars Schimmer (IT-Support)

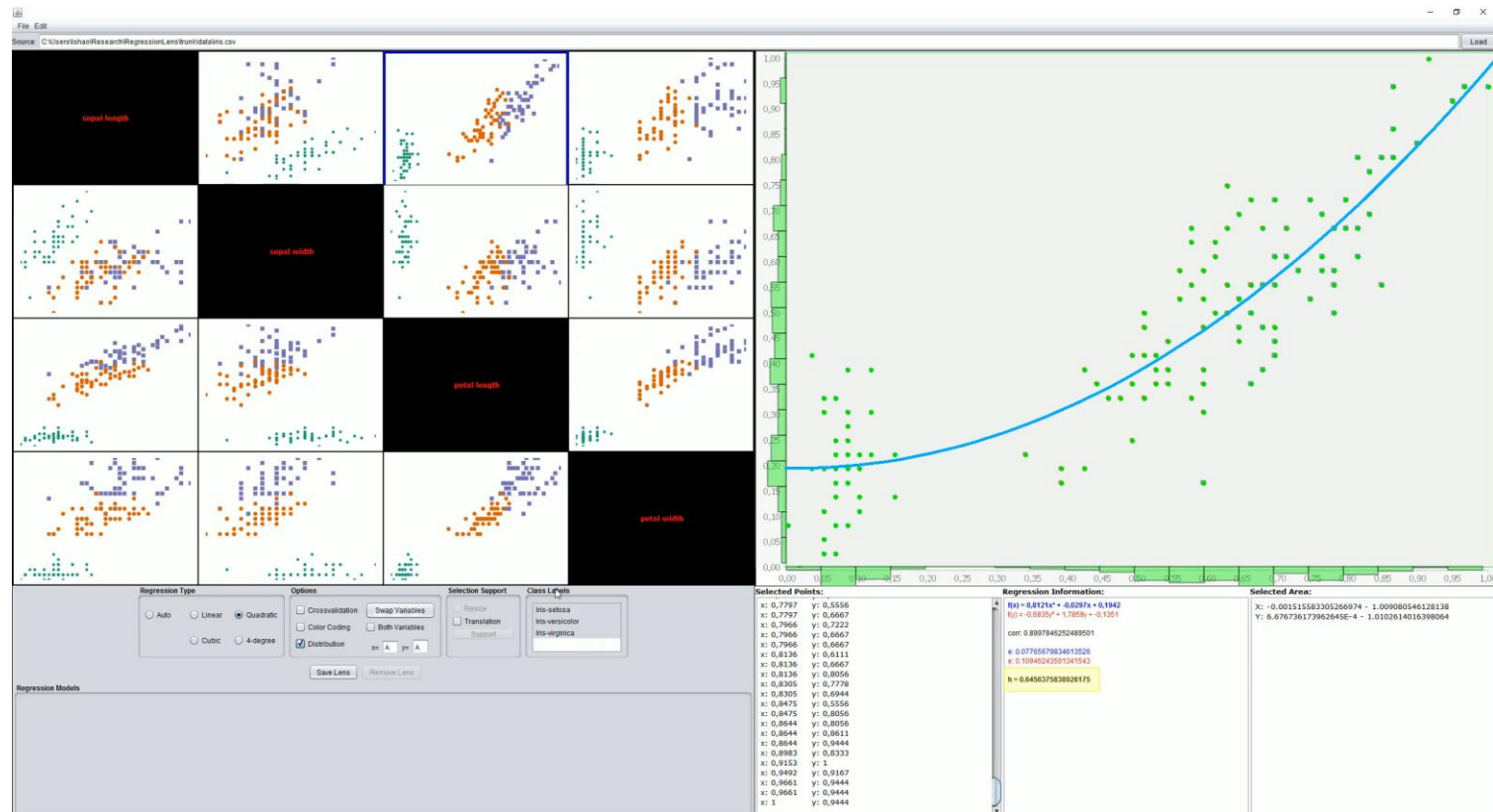


- **Alumni 2017**

- Dr. Pavlos Mavridis (Microsoft, Böblingen)
- Dr. Xueqing Zhao (Xi'an University)

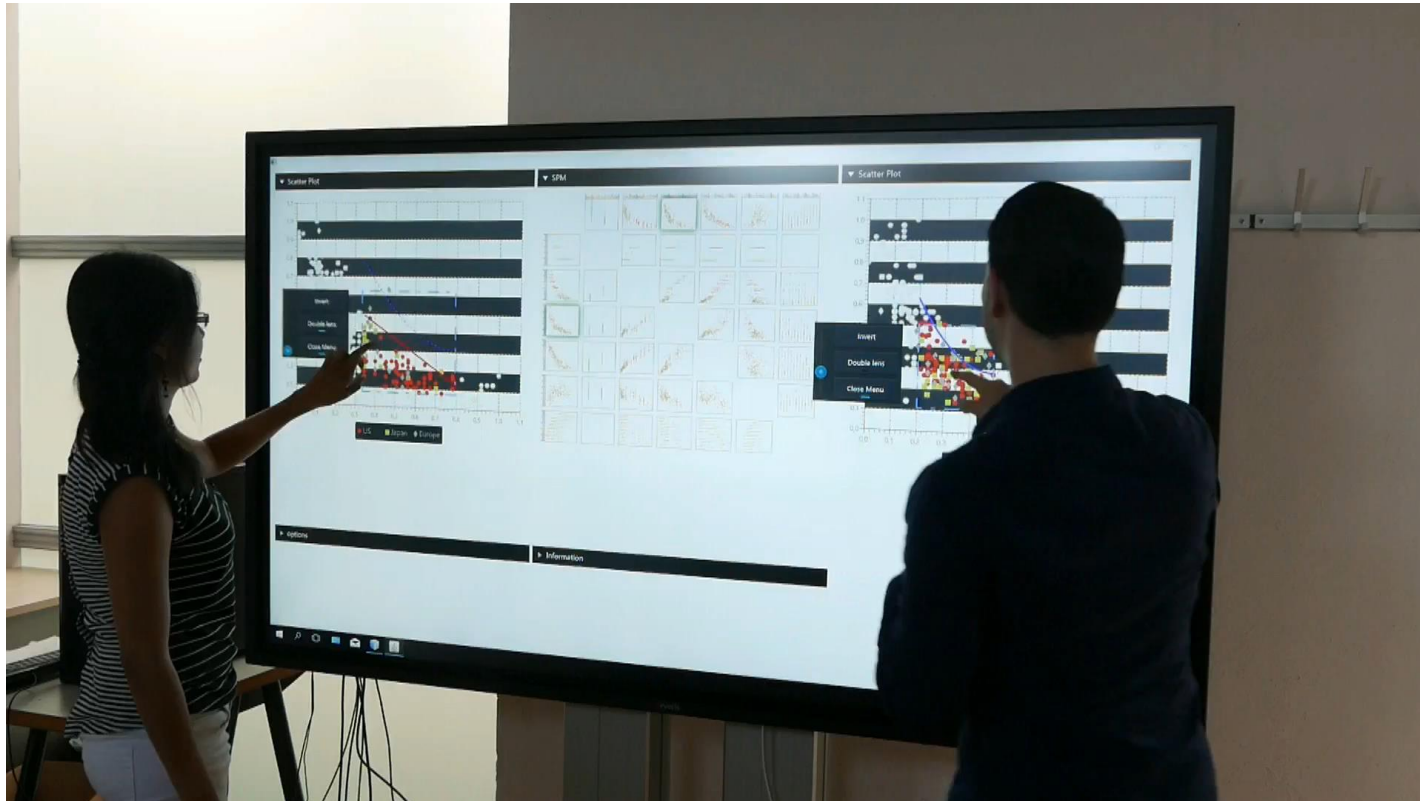


Regression Lens [1]



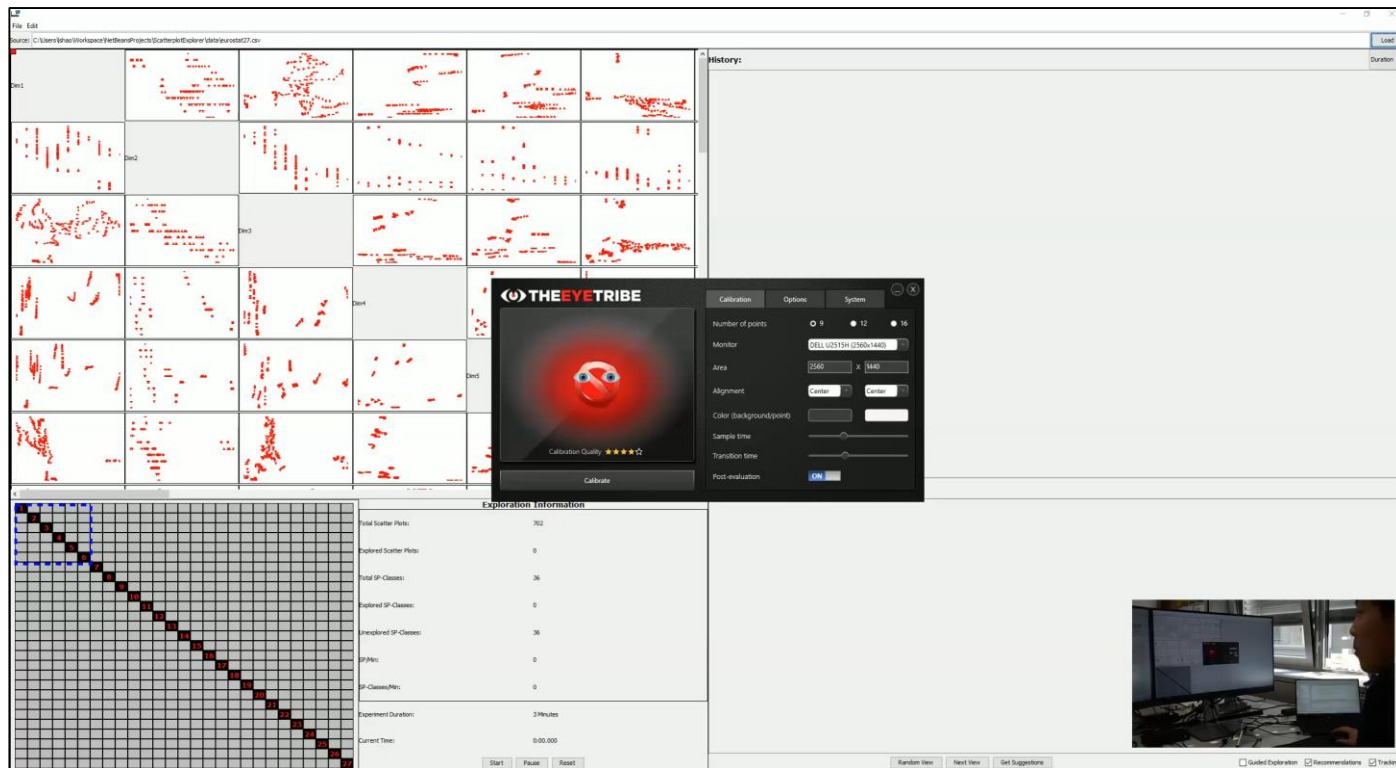
[1] Shao, Lin, et al. "Interactive Regression Lens for Exploring Scatter Plots." *Computer Graphics Forum*. Vol. 36. No. 3. 2017.

Collaborative Scatterplot Analysis [2]



[2] Mohammad Chegini, et al. "Interaction Concepts for Collaborative Visual Analysis of Scatterplots on Large Vertically-Mounted High-Resolution Multi-Touch Displays." Forum Media Technology & All Around Audio Symposium. 2017.

Eye-tracking Exploration and Recommendation [3]



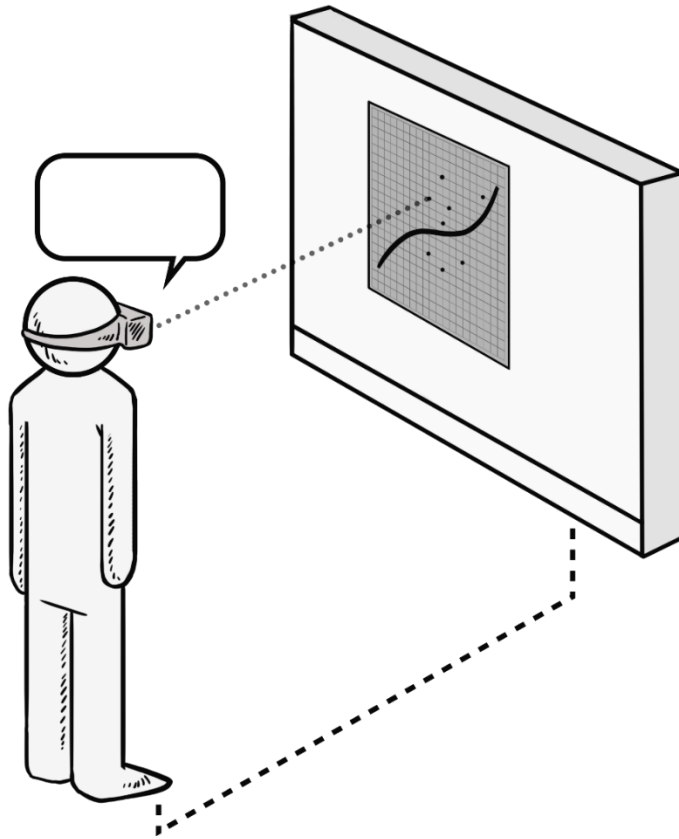
[3] Shao, Lin, et al. "Visual exploration of large scatter plot matrices by pattern recommendation based on eye tracking." Proceedings of the 2017 ACM Workshop on Exploratory Search and Interactive Data Analytics. ACM, 2017.

Overview of Current Software

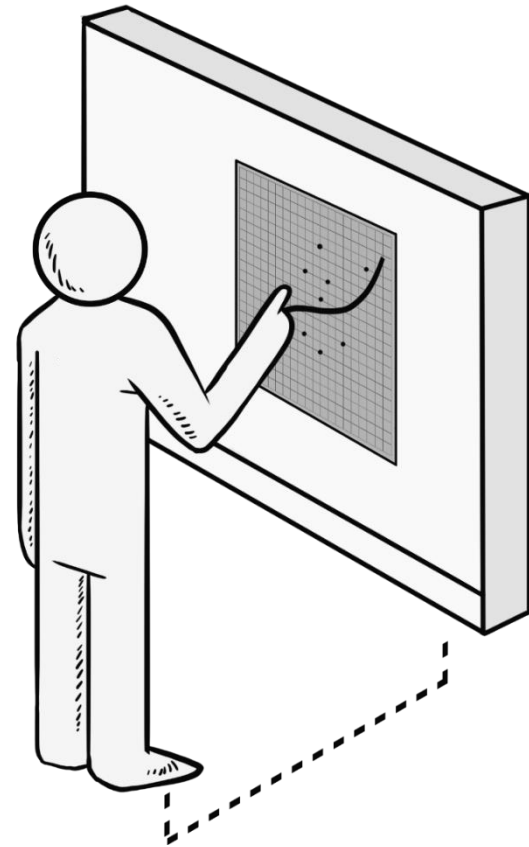
- Parallel coordinates view.
- Search for local patterns (EuroVis 2018, Brno).



Multimodal Interaction for VA



Interaction with speech
and Gaze



Interaction with multi-touch

Toward a Smart Responsive System

- The system detects activities of the user.
- The system decides which view to show based on the activities.
- The system analyses the data, searches for patterns and similar tasks without explicit commands.

Thank you

