

Kent Academic Repository

Full text document (pdf)

Citation for published version

Micallef, Luana and Rodgers, Peter (2009) Poster: Force-Directed Layout for Euler Diagrams.
In: IEEE Information Visualization 2009 (IEEE InfoVis 2009), October 2009, Atlantic City, NJ, USA.

DOI

Link to record in KAR

<http://kar.kent.ac.uk/30586/>

Document Version

Publisher pdf

Copyright & reuse

Content in the Kent Academic Repository is made available for research purposes. Unless otherwise stated all content is protected by copyright and in the absence of an open licence (eg Creative Commons), permissions for further reuse of content should be sought from the publisher, author or other copyright holder.

Versions of research

The version in the Kent Academic Repository may differ from the final published version.

Users are advised to check <http://kar.kent.ac.uk> for the status of the paper. **Users should always cite the published version of record.**

Enquiries

For any further enquiries regarding the licence status of this document, please contact:

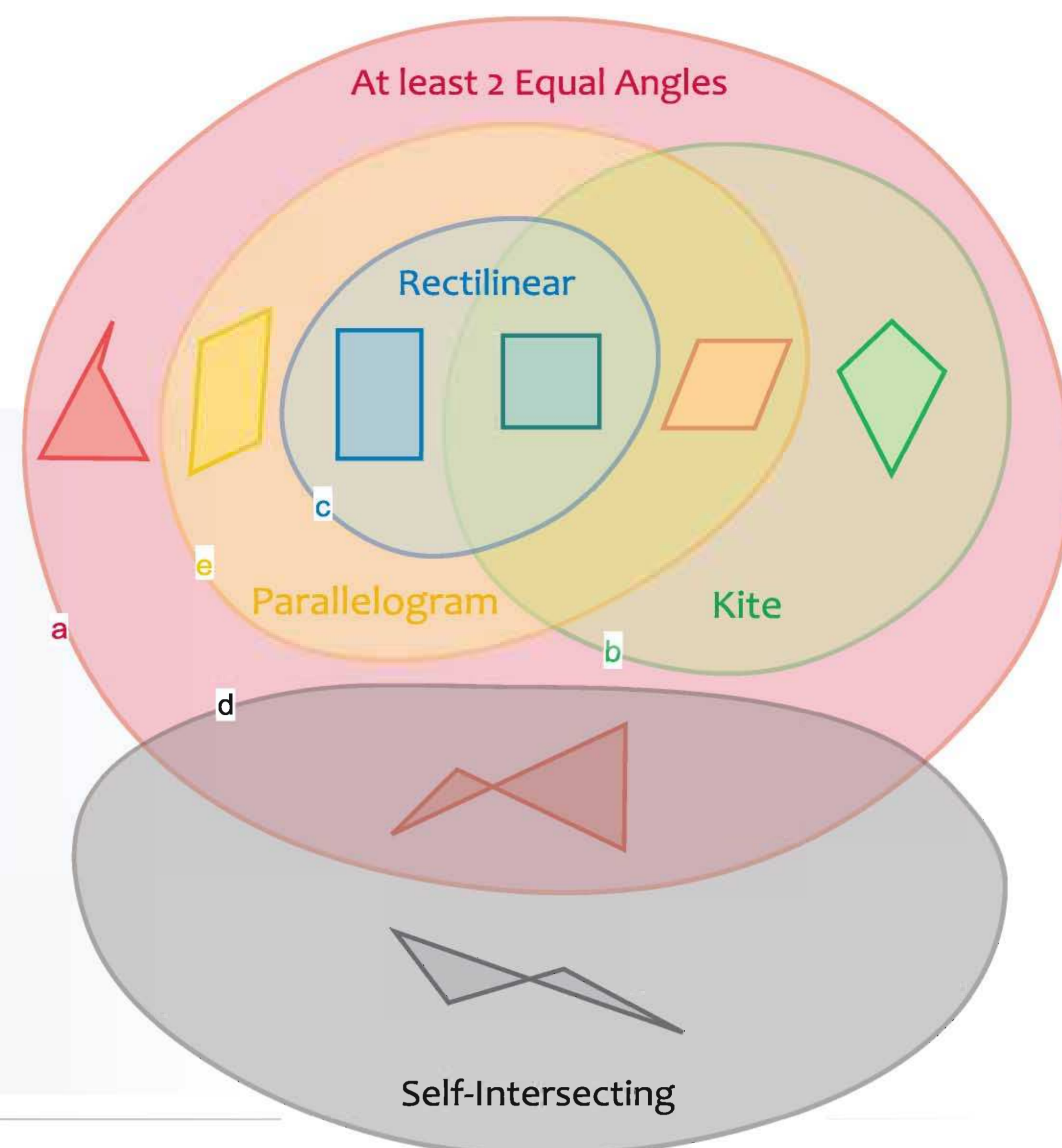
researchsupport@kent.ac.uk

If you believe this document infringes copyright then please contact the KAR admin team with the take-down information provided at <http://kar.kent.ac.uk/contact.html>

Force-Directed Layout for Euler Diagrams

Problem

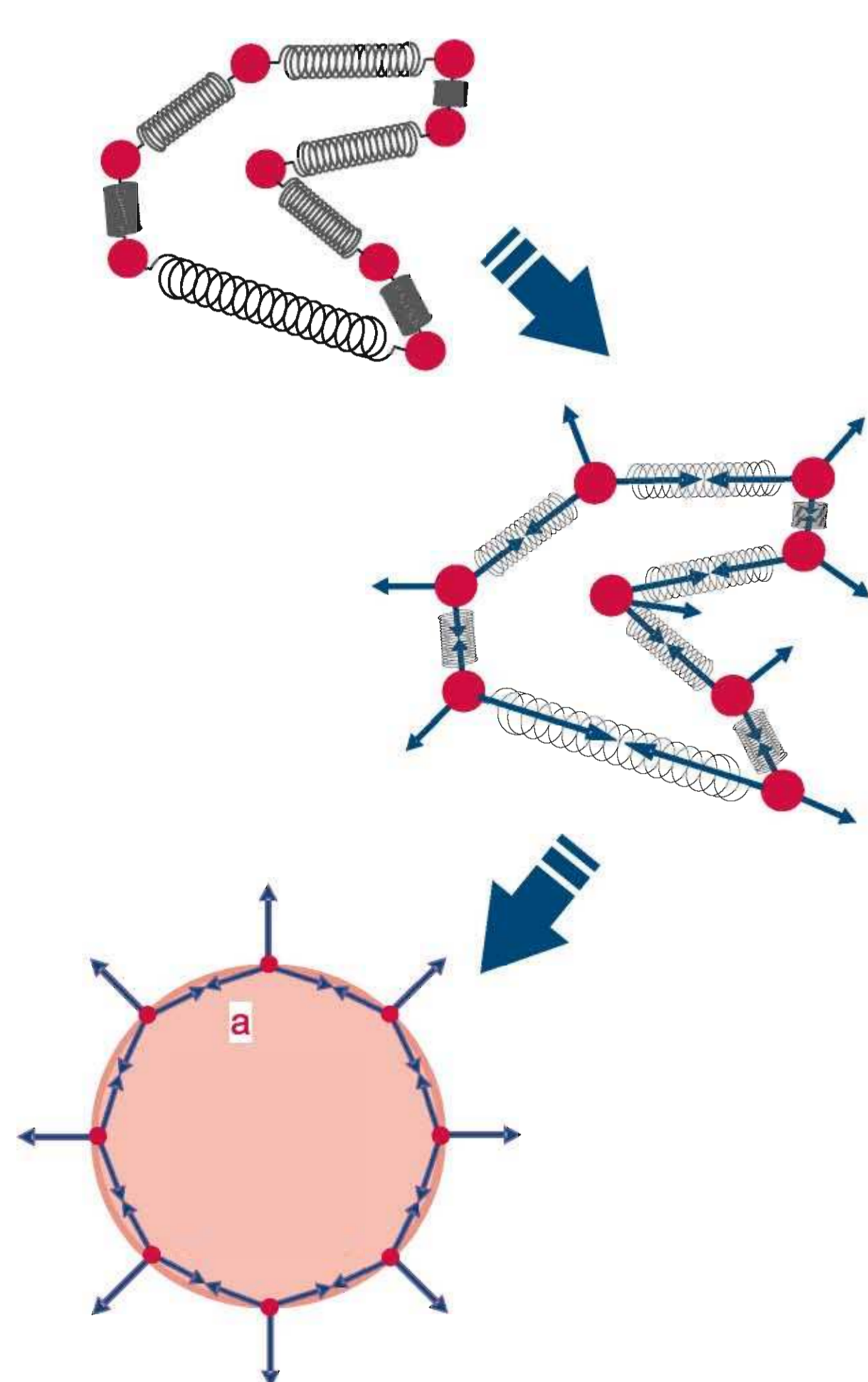
Euler diagrams are the only diagrams that intuitively represent *containment*, *intersection* and *exclusion* of data. Though they are used in a wide variety of application areas, such as biological visualization, data classification and querying of large databases, none of the current *automatic diagram layout techniques* produce good layouts in reasonable time.



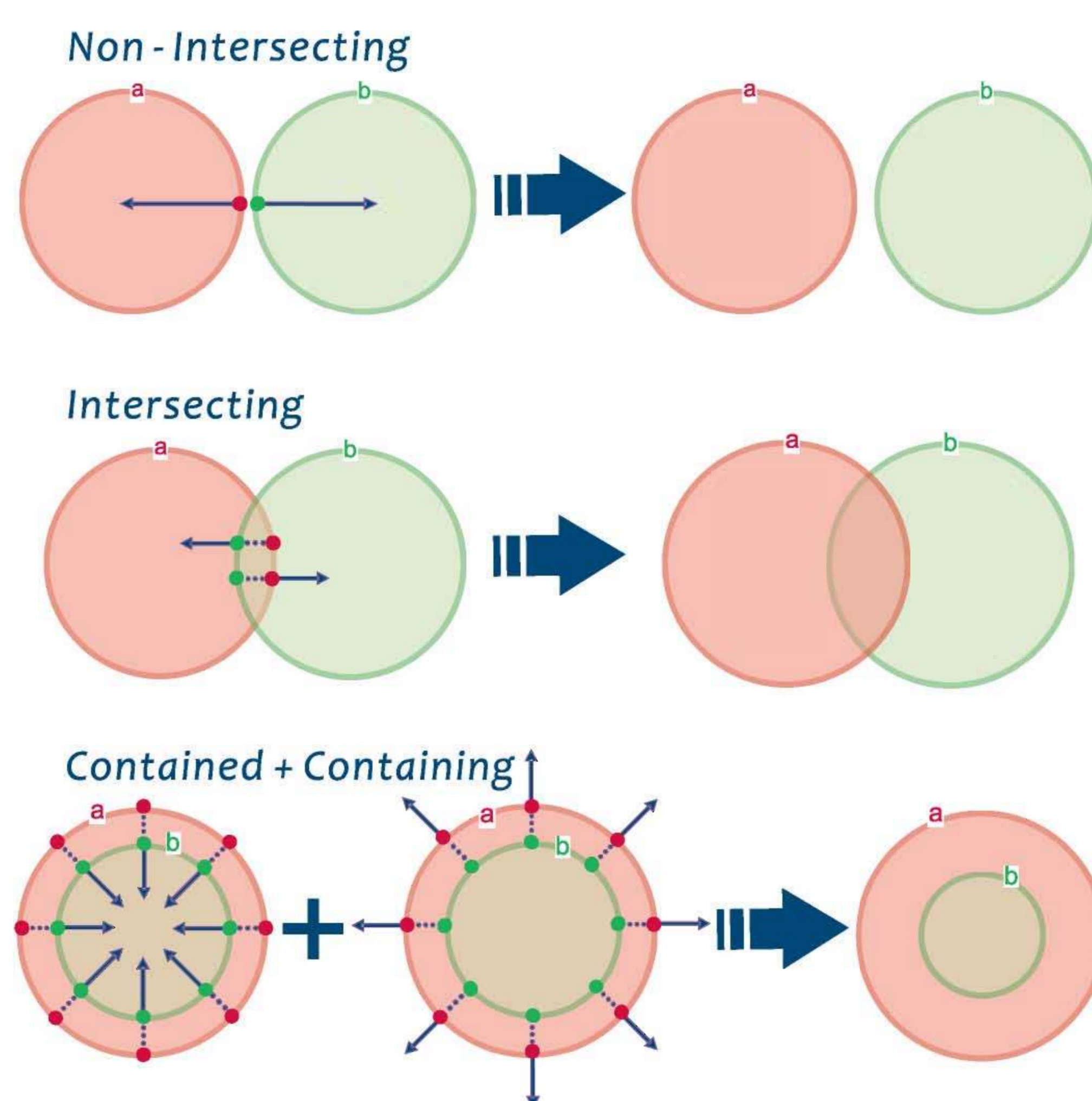
Our Approach

We adopt a *force-directed approach* to automatically layout aesthetically pleasing Euler diagrams in a reasonable time. The initial diagrams dealt with are all generated by the latest wellformed Euler diagram generator. All the forces in our model have specific objectives:

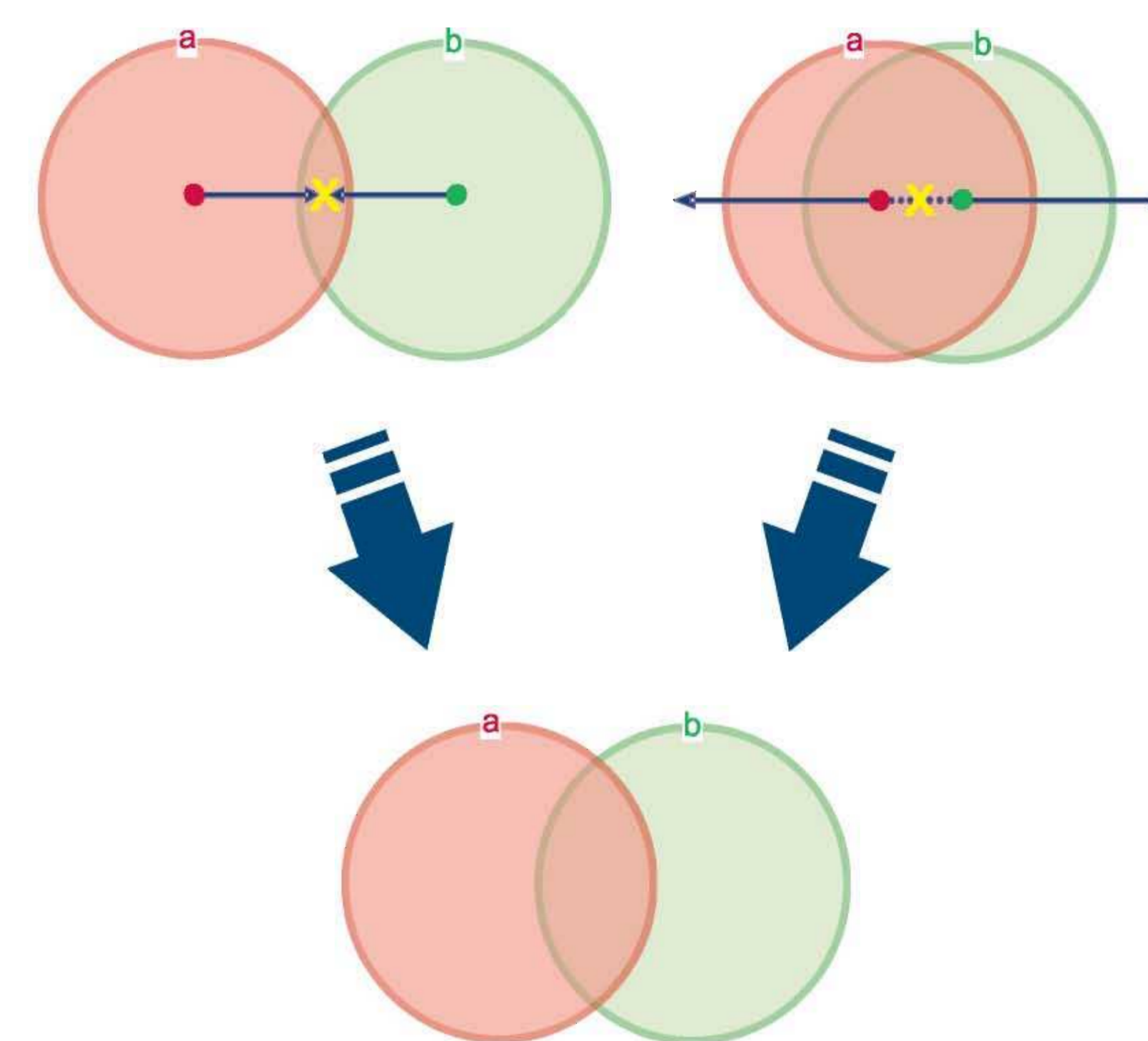
① Attain Smooth Polygons



② Maintain Original Structure



③ Ensure Adequately Sized Curves and Zones



Example

