Graph Layout Algorithms - Readings

# Representations of polygamy

Hott, J. R., Martin, W. N., & Flake, K. (2018). Visualization of Complex Familial and Social Structures. *Electronic Imaging*, *2018*(1), 314-1-314–319.

# Representations of Divorce/Remarriage

Kim, N. W., Card, S. K., & Heer, J. (2010). Tracing Genealogical Data with TimeNets. *Proceedings of the International Conference on Advanced Visual Interfaces*, 241–248. https://doi.org/10.1145/1842993.1843035

# Efficient Genealogical Graph Layout

<file:///Users/yaya/Downloads/Marik%20.pdf>

Marik R. (2017) Efficient Genealogical Graph Layout. In: Cherifi H., Gaito S., Quattrociocchi W., Sala A. (eds) Complex Networks & Their Applications V. COMPLEX NETWORKS 2016 2016. Studies in Computational Intelligence, vol 693. Springer, Cham

(See Greta’s document)

* Classic tree-based genealogical charts focus on specific members of the family and that specific member’s direct descendants and ascendants
* “Such tree-based representations miss a broader context of relationships and do not allow the quick assessment of several interlinked families together.”
* “We propose a new undirected tree-driven layout technique for layered multitree graph visualizations producing constraints on node layers and ordering of groups of nodes within layers. The computed constraints can be mapped, at least partially, into the DOT language property directives used by the Graphviz toolbox.

“

<https://link.springer.com/chapter/10.1007/978-3-319-50901-3_45>

# Interactive graph layout – Henry

*http://scholar.google.com.au/scholar\_url?url=https://dl.acm.org/doi/pdf/10.1145/120782.120788&hl=en&sa=X&scisig=AAGBfm1slYZtFUQg5PXAB1WNPQyp7WCDLQ&nossl=1&oi=scholarr*

# Hierarchical edge bundles: Visualisation of adjacency – Holten

*http://scholar.google.com.au/scholar\_url?url=http://citeseerx.ist.psu.edu/viewdoc/download%3Fdoi%3D10.1.1.220.8113%26rep%3Drep1%26type%3Dpdf&hl=en&sa=X&scisig=AAGBfm2kGCn\_dINd\_7Sr2WjCb\_CWYJZqTg&nossl=1&oi=scholarr*

# Online hierarchical graph drawing – North

*http://scholar.google.com.au/scholar\_url?url=https://link.springer.com/content/pdf/10.1007/3-540-45848-4\_19.pdf&hl=en&sa=X&scisig=AAGBfm0hU\_yjwtQ-9WiSeQUOWq5a9qOEXQ&nossl=1&oi=scholarr*

# An Algorithm for Drawing a Hierarchical Graph – P EADES

[*http://www.cse.unsw.edu.au/~lxue/publication/tute.ps*](http://www.cse.unsw.edu.au/~lxue/publication/tute.ps)

# A layout algorithm for hierarchical graphs with constraints – M Slade

[*https://scholarworks.rit.edu/cgi/viewcontent.cgi?article=1638&context=theses*](https://scholarworks.rit.edu/cgi/viewcontent.cgi?article=1638&context=theses)

# Graph Hierarchical Layout Algorithm – ASAP Scheduling Algorithm – Lecture

[*https://stackoverflow.com/questions/13861130/graph-hierarchical-layout-algorithm*](https://stackoverflow.com/questions/13861130/graph-hierarchical-layout-algorithm)

# On-Line Hierarchical Graph Drawing – Graphviz – SC North

*https://graphviz.gitlab.io/\_pages/Documentation/NW01.pdf*

# Hierarchical Drawing Algorithms – Brown CS – rtamassi

[*http://cs.brown.edu/people/rtamassi/gdhandbook/chapters/hierarchical.pdf*](http://cs.brown.edu/people/rtamassi/gdhandbook/chapters/hierarchical.pdf)

# Graph Layout Algorithms

[*http://www.bii.a-star.edu.sg/achievements/applications/cellware/tutorial/page7-4.html*](http://www.bii.a-star.edu.sg/achievements/applications/cellware/tutorial/page7-4.html)

# A Hierarchical Layout Algorithm for Drawing Directed Graphs – J Reynolds

[*https://www.collectionscanada.gc.ca/obj/s4/f2/dsk2/ftp04/mq20694.pdf*](https://www.collectionscanada.gc.ca/obj/s4/f2/dsk2/ftp04/mq20694.pdf)

# Layout of hierarchical flow charts – T Tusla

[*https://dspace.cvut.cz/bitstream/handle/10467/70124/F3-DP-2017-Tusla-Tomas-Layout\_of\_hierarchical\_flow\_charts.pdf?sequence=1&isAllowed=y*](https://dspace.cvut.cz/bitstream/handle/10467/70124/F3-DP-2017-Tusla-Tomas-Layout_of_hierarchical_flow_charts.pdf?sequence=1&isAllowed=y)

# A fast heuristic for hierarchical Manhattan layout – G Sander

[*https://link.springer.com/content/pdf/10.1007/BFb0021828.pdf*](https://link.springer.com/content/pdf/10.1007/BFb0021828.pdf)

# Steps of a hierarchical layout algorithm – Hanspeter Mossenbock

[*https://www.researchgate.net/figure/Steps-of-a-hierarchical-layout-algorithm\_fig18\_221302634*](https://www.researchgate.net/figure/Steps-of-a-hierarchical-layout-algorithm_fig18_221302634)

# A Survey of Multiple Tree Visualisation (Ben’s recommendation in the abstract)

Graham, M., & Kennedy, J. (2010). A Survey of Multiple Tree Visualisation. *Information Visualization*, *9*(4), 235–252. https://doi.org/10.1057/ivs.2009.29