With the energy method, we relax our expansive condition. That doesn't seem like such a concession — why were we so concerned with expansivity in the first place? Was it just a convenient condition to ensure no self-intersection?

For the energy decreasing algorithm, how do we know that when following the gradient we aren't finding just a local minimum that isn't fully unfolded?

(presumably this is what would happen if we tried to apply the algorithm to some locked 2D trees)

Really interested in pointed pseudotriangulations [...]

Ray Shooting in Polygons Using Geodesic Triangulations[1]

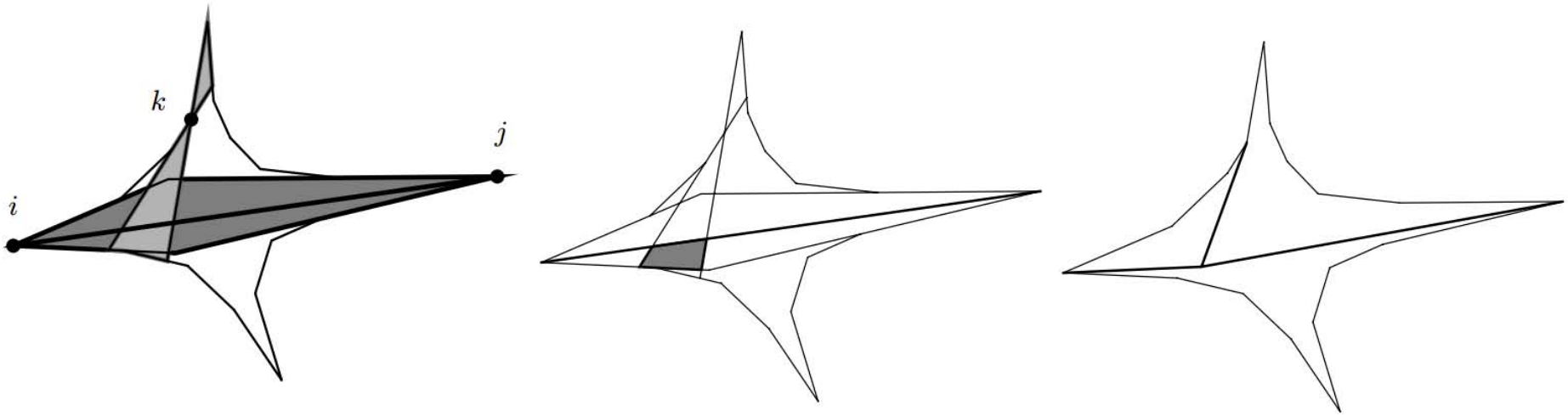
B. Chazelle,[2] H. Edelsbrunner,[3] M. Grigni,[4] L. Guibas,[5,6,7]
J. Hershberger,[5] M. Sharir,[8,9] and J. Snoeyink[7]

Image of the first two levels of a balanced geodesic triangulation removed due to copyright restrictions. Refer to: Fig. 3 from Chazelle, B., H. Edelsbrunner, et al. "Ray Shooting in Polygons Using Geodesic Triangulations." In *Automata, Languages and Programming*. Springer, 1991, 661–73.

Planar Minimally Rigid Graphs and Pseudo-Triangulations

Ruth Haas [a], David Orden [b,1], Günter Rote [c,2],
Francisco Santos [d,1], Brigitte Servatius [e], Herman Servatius [e],
Diane Souvaine [f,3], Ileana Streinu [g,4], Walter Whiteley [h,5]

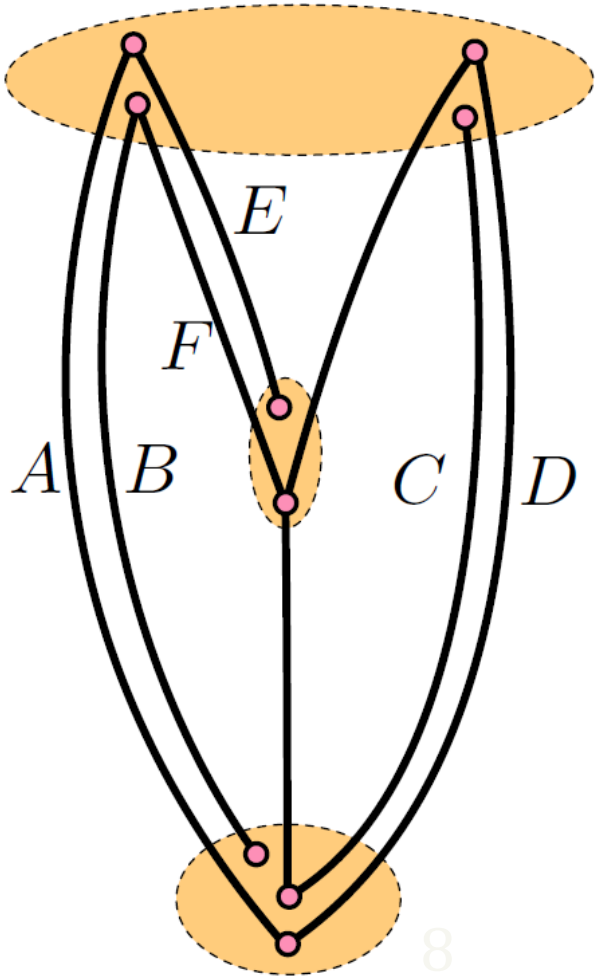
Image of Henneberg constructions removed due to copyright restrictions.
Refer to: Page 34 from http://www.mpi-inf.mpg.de/conference/adfocs05/Rote.pdf.

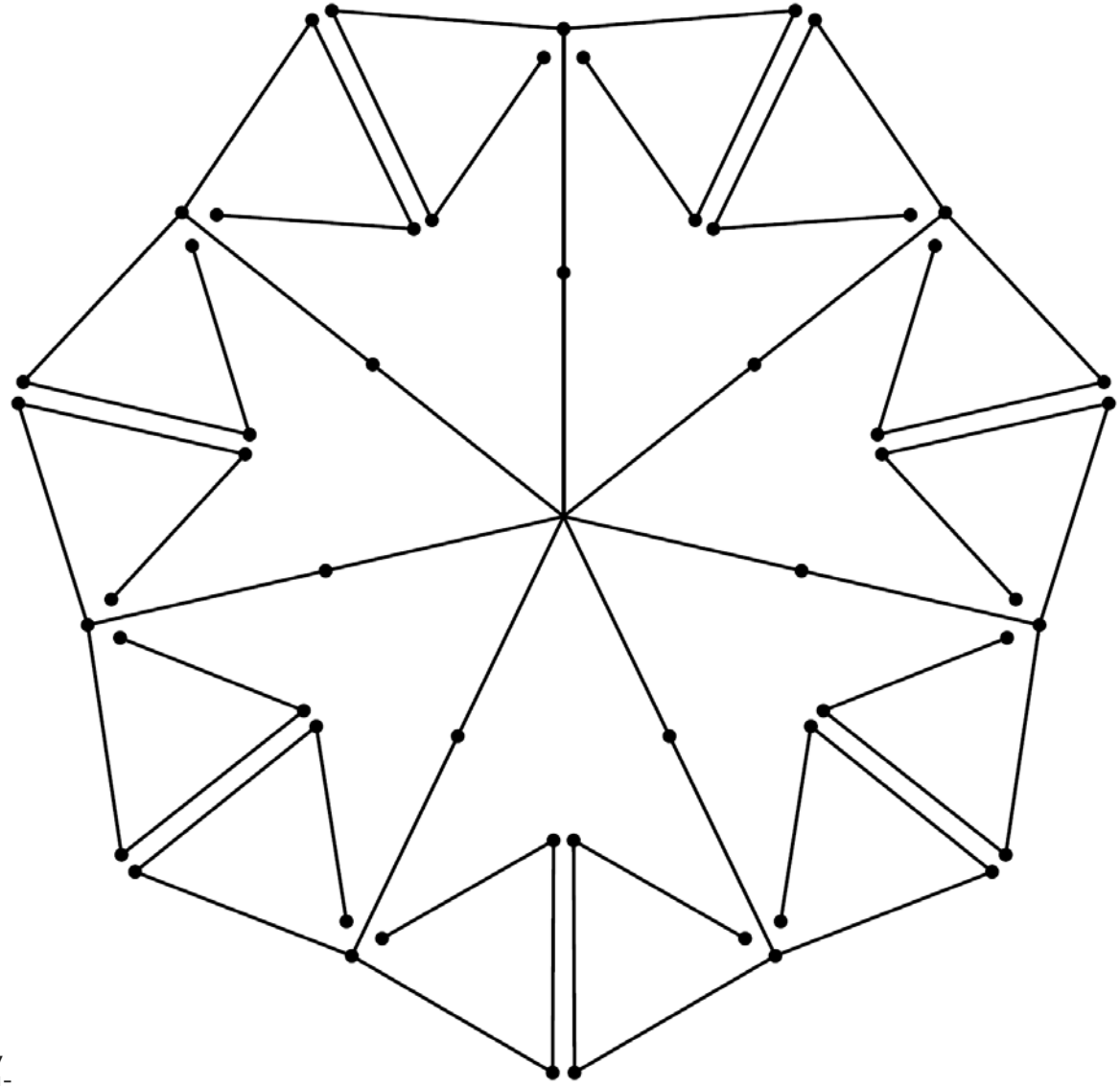


[Haas, Orden, Rote, Santos, Servatius, Servatius, Souvaine, Streinu, Whiteley 2005]

Images of collapsed pte-mechanisms removed due to copyright restrictions.
Refer to: Fig. 3 from Rote, G., F. Santos, and I. Streinu. "Expansive Motions and the Polytope of Pointed Pseudo-Triangulations." In *Discrete and Computational Geometry*. Springer, 2003, pp. 699–736.

Have any of the open problems been solved?





Courtesy of Brad Ballinger, David Charlton, Erik D. Demaine, Martin L. Demaine, John Iacono, Ching-Hao Liu, and Sheung-Hung Poon. Used with permission.

[Ballinger, Charlton, Demaine, Demaine, Iacono, Liu, Poon 2009]

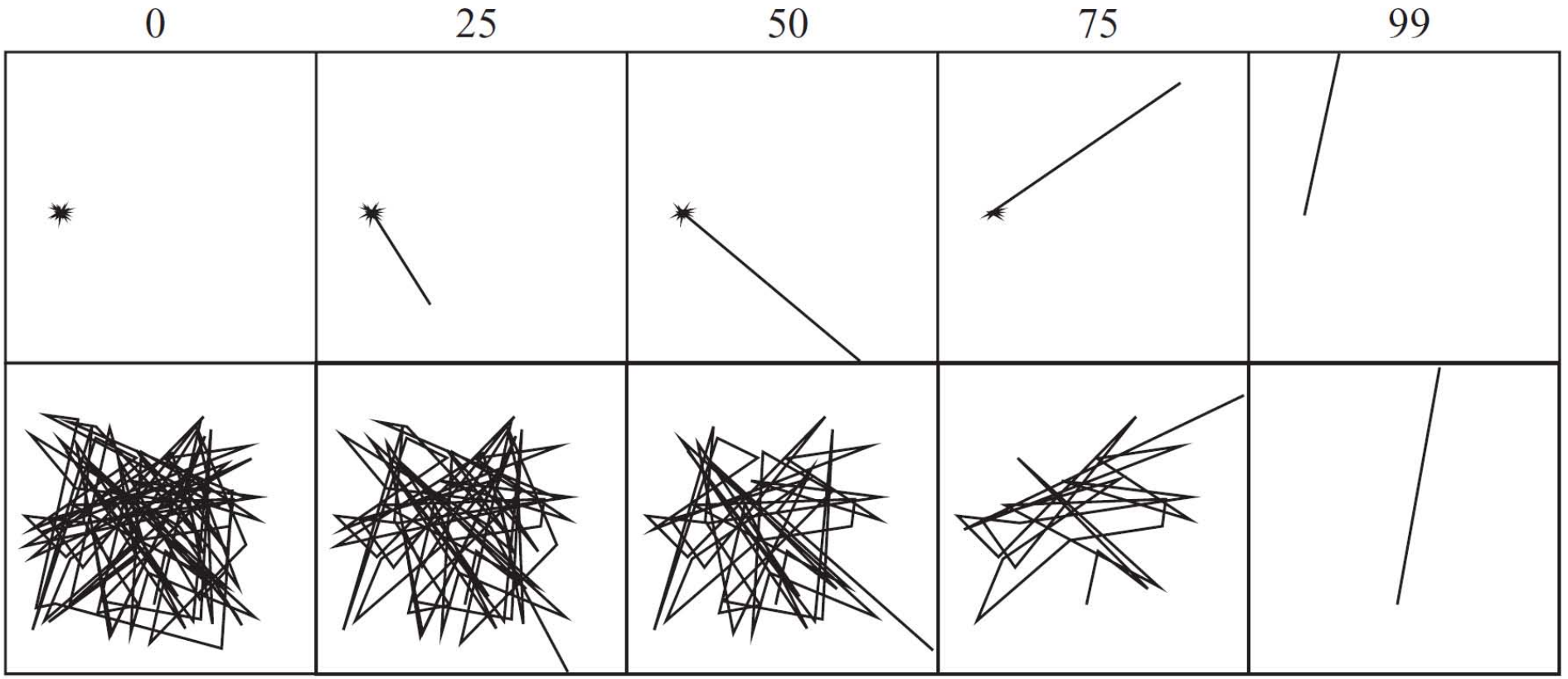
Folding Equilateral Plane Graphs

Zachary Abel[1], Erik D. Demaine[2], Martin L. Demaine[2], Sarah Eisenstat[2], Jayson Lynch[2], Tao B. Schardl[2], and Isaac Shapiro-Ellowitz[3]

Image of splitting a vertex and reconfiguring into a canonical state removed due to copyright restrictions.
Refer to: Fig. 1, 2 from Abel, Z., E. D. Demaine, et al. "Folding Equilateral Plane Graphs." *Proceedings of the 22nd International Symposium on Algorithms and Computation, Lecture Notes in Computer Science* 7074 (2011): 574–83.

[Abel, Demaine, Demaine, Eisenstat, Lynch, Schardl, Shapiro-Ellowitz 2011]

I’d like a little more intuition on why 4D is so radically different than 3D for locked linkages.



[Cocan & O'Rourke 2001]

6.849 Geometric Folding Algorithms: Linkages, Origami, Polyhedra
Fall 2012