Folding the path to DNA origami

Paper 0: Yan (2003) https://www.pnas.org/doi/full/10.1073/pnas.1032954100

• Figure 5 proposes what is essentially origami

Paper 1: Rothemund (2006) https://www.nature.com/articles/nature04586

The DNA origami paper

Paper 2: Douglas (2009) https://www.nature.com/articles/nature08016

- 3D DNA origami
- Also the introduction of Cadnano

Paper 3: Dietz (2009) https://www.science.org/doi/full/10.1126/science.1174251

Twisted and curved 3D origami

Paper 4: Zhang (2015) https://www.nature.com/articles/nnano.2015.162

Wireframe origami

Paper 5: Gerling (2015) https://www.science.org/doi/full/10.1126/science.aaa5372

Shape-complimentary assembly

Paper 6: Wintersinger (2022) https://www.nature.com/articles/s41565-022-01283-1

Criss-cross assembly

Further reading

Or: things that were on the list that I had to cut to get down to 7 papers

Shih (2004) https://www.nature.com/articles/nature02307

• A large, single-stranded polyhedron

Andersen (2008) https://pubs.acs.org/doi/abs/10.1021/nn800215j

- The first "dynamic" structure
- Also an early design software

Andersen (2011) https://www.nature.com/articles/nature07971

Truly dynamic structure

Han (2011) https://www.science.org/doi/full/10.1126/science.1202998

Arbitrary twisted surfaces

Han (2013) https://www.science.org/doi/full/10.1126/science.1232252

DNA origami gridirons

• Might call these the first wireframe structures?

Tikhomirov (2017) https://www.nature.com/articles/nature24655

• Hierarchical assembly

Han (2017) https://www.science.org/doi/10.1126/science.aao2648

• Single-stranded origami

Yao (2021) https://www.nature.com/articles/s41557-020-0539-8

• DNA from origami from DNA

Ng (2023) https://onlinelibrary.wiley.com/doi/full/10.1002/adma.202302497

• Triplex origami