Title: Programming Flat-to-Synclastic Reconfiguration

Link: https://www.researchgate.net/publication/330855223_Programming_Flat-to-Synclastic_Reconfiguration

Contributions

Defines what the mechanism that allows for bi-stability is called. The paper defines it as snap-through buckling. When the structure is transformed from one state to another the structure "snaps through"

The two stable states can also be defined as the two states which have an energy minimum. This means that the hinges are translating strain energy to other parts of the structure.

Limitations

Requires the use of cnc machine to create angled surfaces in the 2D case. The assumption that there is not strain energy on the hinges is a big assumption.

Future Directions

Application to larger scale structures.

Citations

References

[1] Yu-Chou Chiang. Programming flat-to-synclastic reconfiguration. *Archi-DOCT*, 6:64–79, 02 2019.

Tag: programming [1]