

The thesis by Ms. Pernicová titled "Grid-edge unfolding orthostacks" studies the problem of unfolding of polyhedra under special circumstances. In particular, a special type of unfolding called grid-edge unfolding for special type of polyhedra called orthostacks is studied. This unfolding generalizes the more intuitive edge unfolding by allowing the polyhedron to be cut along "a grid" in a sense. Naturally this notion makes most sense when the polyhedron itself is "aligned to a grid". Orthostacks are polyhedra that are obtained by stacking "axis-aligned rectangular slabs" on top of one another.

The subject material is (more than) sufficiently complex to be suitable for a bachelor thesis. The work contains presentation of two known algorithms together with a novel modification. This work has been accepted for presentation in CCCG which is a reasonable conference especially for an original research work done by an undergraduate student.

I find the subject matter complicated enough that I would consider understanding two known algorithms for this problem to be sufficient for an undergraduate thesis so having the results published in CCCG should definitely qualify as sufficient for it. Below I list some specific comments that I have about the thesis.

* First and foremost, the research output (in terms of work/s accepted at conferences) should be clearly mentioned and added to the list of bibliography. The present thesis only mentions a review process at CCCG.

* I found the presentation overall excellent. The material involved quite complicated definitions (at least in terms of the number of notions) and the author used pictures to compliment definitions very nicely. I was a little intimidated by the text multiple times but the figures helped immensely.

* I found the first paragraph of the introduction alarming. "We use nets for ..." appears out of nowhere and without context/definitions it makes no sense.

* One minor problem with the writing is confusion in the usage of articles. This may simply be a side-effect of not being a native speaker. (I myself struggle with using articles correctly and not overusing "the").

* I did not particularly like scattered description of notation. For example, after discussing faces parallel to the xy , yz , and zx planes in the previous chapter, names "front-back", etc are introduced in Chapter 3, only to be used thrice.