Propositions

accompanying the dissertation

Are Auxetics Better for Protection?

On the Behaviour of Architected Metamaterials under High-Rate Loading Conditions

by

Til GÄRTNER

1. High rate phenomena in heterogeneous materials invalidate all homogenization efforts.
2. Modelling the strain-rate dependent behaviour of materials without considering inertia effects is futile.
3. The advancement of numerical techniques leads to a decline in the understanding of analytical techniques.
4. To increase productivity in the workplace the usage of generative artificial intelligence cannot be avoided; however, generative artificial intelligence must be treated as an explicit scheme requiring sufficiently small steps and diligent error control.
5. Rigorous enforcement of research data management rules will benefit the progress of science as a whole.
6. The communication of scholarly work in accessible formats, such as popular media articles, ought to be part of the requirements for a doctorate degree.
7. A risk-averse mentality of the public is fundamentally opposed to good science.
8. Inadequate funding for child care and education is a means by which conservative politics maintains existing social hierarchies.
9. Diplomacy is the prime tool to mitigate malevolent ballistic impacts; however, successful diplomacy without an effective higher authority requires anticipatory protective measures.
10. Auxetics are **not** better for protection. *pertains to this dissertation*

These propositions are regarded as opposable and defendable, and have been approved as such by the promotor prof.dr.ir. L.J. Sluys, the copromotor dr.ir. J. Weerheijm, and the external advisor dr.ir. S.J. van den Boom.