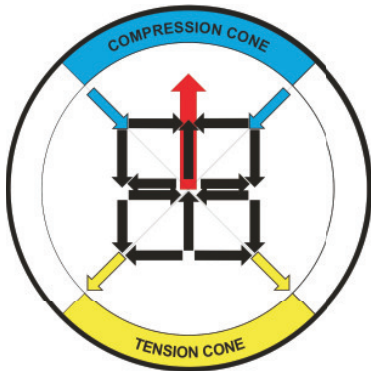


# Computer-free Design Using the Method of Force Cones

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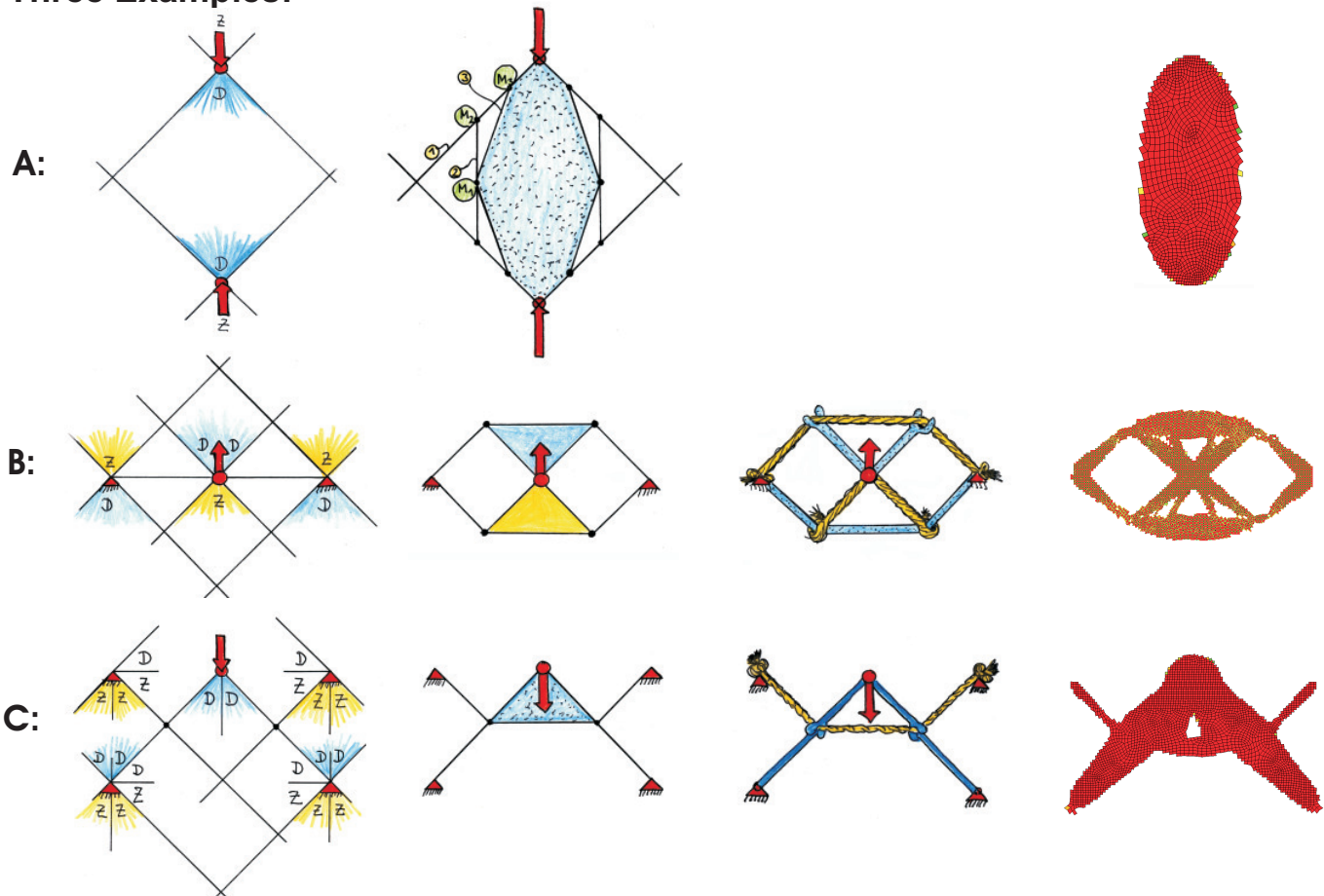
## Concept:

Single loads orientate along axial  $90^\circ$  compression cones and  $90^\circ$  tension cones, respectively. Using the edges and intersection points of these cones, a lightweight design can be generated. First results were compared to results of the earlier SKO (Soft Kill Option).

## Method of Force Cones

## SKO

### Three Examples:



**Conclusion:** Using this simple graphical thinking tool, optimization of topology seems to be possible. The limitations of this method are still unknown to us.

more information: [www.mattheck.de](http://www.mattheck.de)

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