

Bolbotowski, K. *Optimal vault problem – form finding through 2D convex program*. Computers & Mathematics with Applications, Elsevier (2022), t. 109, str. 280–324.

on-line>> <https://doi.org/10.1016/j.camwa.2022.01.018> *Abstract*

This work puts forward a form finding problem of designing a least-volume vault that is a surface structure spanning over a plane region, which via pure compression transfers a vertically tracking load to the supporting boundary. Through a duality scheme, developed recently for the design of pre-stressed membranes, the optimal vault problem is reduced to a pair of mutually dual convex problems formulated on the 2D reference region. (...)