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**New numerical results for thin inhibited hyperbolic shells: The case of hyperbolic paraboloid.** (Nouveaux résultats numériques concernant les coques minces hyperboliques inhibées: Cas du paraboloïde hyperbolique.) (French. Abridged English version) [Zbl 0969.74063](#)  
C. R. Acad. Sci., Paris, Sér. II, Fasc. b, Méc. Phys. Astron. 326, No. 11, 755-760 (1998).

**Summary:** We present numerical tests for hyperbolic inhibited shells. The subject is to approximate the normal component of displacement with the help of Ganev-Argyris triangles when the thickness  $\varepsilon$  tends to 0. We then deal with the membrane limit problem ( $\varepsilon = 0$ ) in order to compare these results with the last one. The tests show that for all fixed  $\varepsilon$  there exists a best non-trivial mesh step size  $h_0$ , and  $\varepsilon \rightarrow 0$  involves  $h_0 \rightarrow 0$ . These tests are concerned with a totally clamped hyperbolic-parabolic shell.

**MSC:**

[74S05](#) Finite element methods applied to problems in solid mechanics  
[74K25](#) Shells

Cited in **3** Documents

**Keywords:**

vanishing thickness; inhibited paraboloid; finite elements; hyperbolic inhibited shells; Ganev-Argyris triangles; membrane limit problem; mesh step size; totally clamped hyperbolic-parabolic shell

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