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**Some recent advances in the asymptotic analysis of elastic shells
under contact conditions**

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Abstract

Shells are three-dimensional structures of small thickness compared to the extension they cover. Such structures are abundant in nature but also in industry, where they are appreciated for their quality of sustaining applied loads with a minimum amount of material, with the lightness and economy that this represents. In the last decade a considerable progress has been made in the asymptotic analysis of elastic and viscoelastic shells under contact conditions, going from unilateral frictional Signorini conditions for elastic elliptic membrane shells to bilateral frictional contact or thermoelastic coupled problems with normal damped response. There is still a need to continue to investigate deeper in this field and in this talk we will address recent advances in two lines of research: coupled problems with tribological effects such as wear or adhesion and Koiter shells under normal compliance contact conditions.