

# **Transient wear modelling of a helical gear pair considering dynamic loading**

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A transient multi-physics methodology is necessary to investigate the impact of wear on durability, efficiency and noise, vibration and harshness (NVH) of cylindrical gear pairs. It also aids robust design by monitoring the flank surfaces' evolution due to wear considering dynamic loading conditions. Moreover, the gear pairs original micro geometry can be optimised for its life cycle. A slicing method for helical gear pair conjunctions is employed in combination with a lubricated Archard wear methodology to investigate the contact level wear phenomenon.