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# Convexity of Whitham's wave of extreme form

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Whitham's model of shallow water waves is a non-homogeneous non-local dispersive equation that features limiting waves such as the Stokes wave for Euler. In this talk, we show the existence of a periodic traveling wave of extreme form of the Whitham equation that has a convex profile between consecutive stagnation points, at which there is a cusp, answering a conjecture by Ehrnstrom and Wahlén.

*Joint work with A. Enciso and B. Vergara.*

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