



Mathematics and CS Seminar

Solutions of the semigeostrophic equation on a rotating sphere

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Hoskins' semigeostrophic equation is one of the most effective meteorological model that represents the formation of transported interfaces (frontogenesis) over the earth. We will present its surprising connection with the theory of optimal transportation when studied in the periodic and flat case, and highlight the major difficulties to extend this argument in the curved setting. We prove local-in-time existence of smooth solutions in subdomains of a rotating sphere taking advantage of an alternative approach based on peculiar cancellation properties intrinsic in the equation's structure.

Tuesday, December 19, 2023 04:15pm - 05:15pm

Heinzel Seminar Room (I21.EG.101), Office Building West, ISTA



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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