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Estimating gravity-wave characteristics from superpressure-balloon flights

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Superpressure balloons have the unique capability of behaving as quasi-Lagrangian tracers in the lower stratosphere. In recent years, more than 30 flights at all latitudes were performed in the framework of the STRATÉOLE-VORCORE campaign. Pressure, temperature and wind fluctuations are measured every 15 minutes during the flights, which can last for more than 3 months. Those datasets are therefore particularly well suited to study gravity waves in the stratosphere: in particular, they should enable the computation of the momentum flux as a function of the wave phase speed. The presentation will be devoted to the latest developments of our attempt to do so.