# Nonlinear ring waves of moderate amplitude

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We model concentric water waves within the scope of 2D Boussinesq system. The results of direct numerical simulations are compared with the results obtained using the cylindrical Korteweg - de Vries (cKdV) and extended cKdV equations derived from the system. We show, in a case study, that the extended cKdV equation gives better agreement than the cKdV equation for the waves of both small and moderate amplitude, and is computationally significantly less expensive than the axisymmetric Boussinesq system. This is joint work with Nerijus Sidorovas, Dmitri Tseluiko and Wooyoung Choi.