# Maximum principle satisfying CWENO schemes for multidimensional nonlocal conservation laws

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In recent years, conservation laws with nonlocal flux have attracted considerable attention in fluid mechanics applications, including granular flow, sedimentation, aggregation phenomena, crowd motion, and traffic flow. In this talk, we will introduce Central WENO (CWENO) schemes as effective tools for approximating the solutions of multidimensional nonlocal conservation laws. CWENO schemes are particularly well suited for nonlocal problems because they provide not only single point values of the solution but a complete high-order reconstruction at each time step. This is advantageous for the accurate evaluation of the integral terms characterizing the underlying physics of the problem. By using an appropriate time-discretization and the well-known linear scaling limiter, our CWENO schemes satisfy a maximum principle for suitable nonlocal conservation laws.