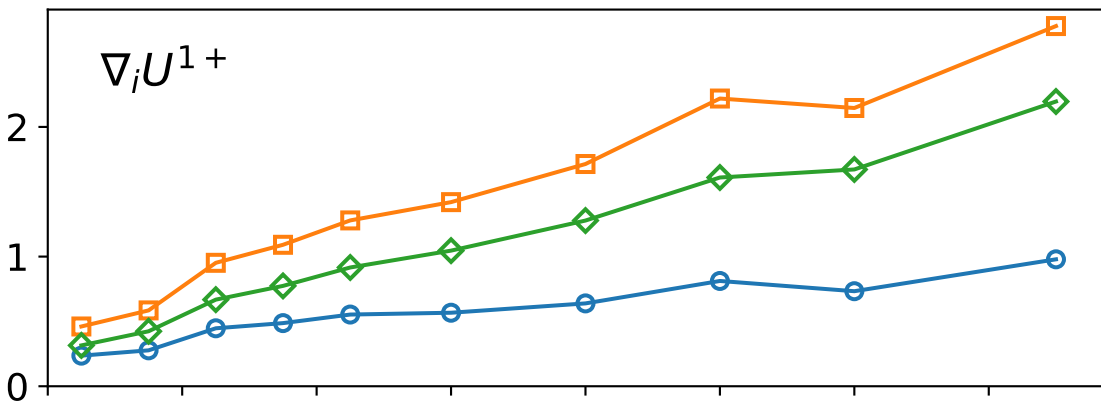


—○— U^{1+} —□— default autodiff —◇— opt. derivative

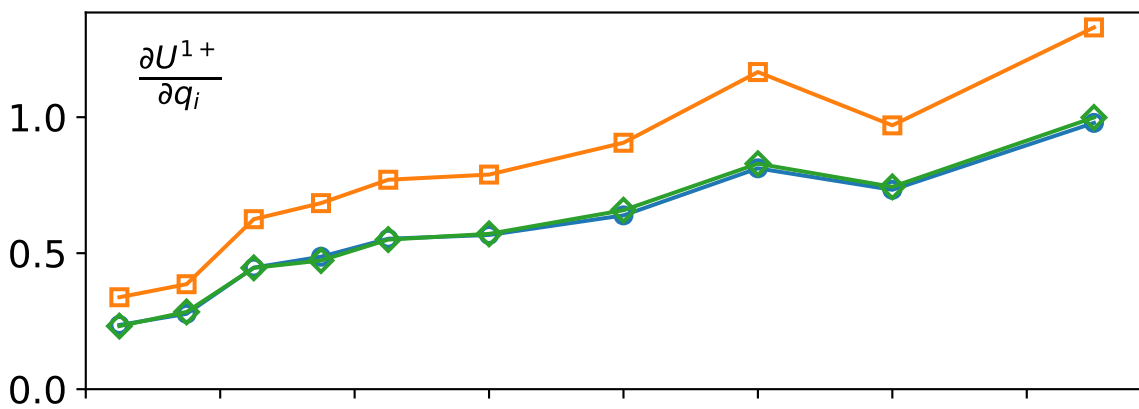
$\nabla_i U^{1+}$

time / ms



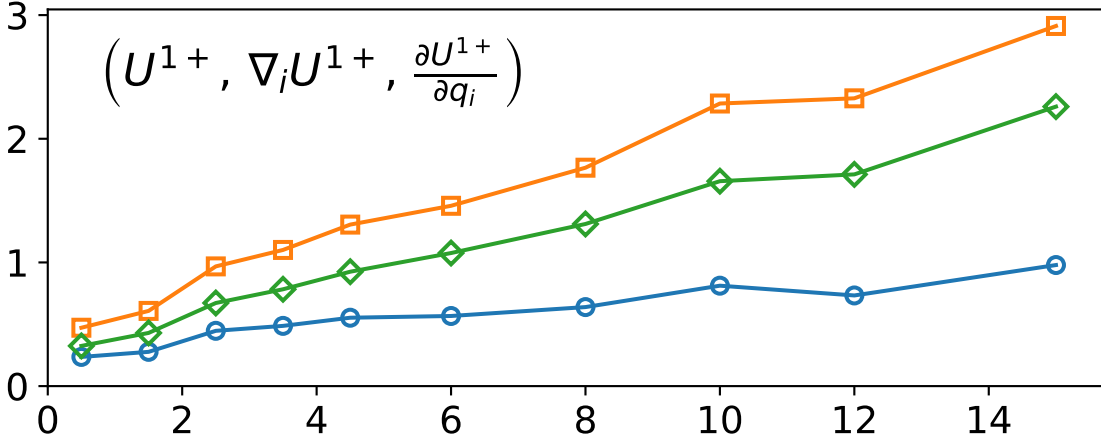
$\frac{\partial U^{1+}}{\partial q_i}$

time / ms



$(U^{1+}, \nabla_i U^{1+}, \frac{\partial U^{1+}}{\partial q_i})$

time / ms



number of particles / 10^3