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Michael A Kouritzin* (michaelk@ualberta.ca), Mathematics and Statistics, University of Alberta, Edmonton, Alberta T6G 2G1, Canada. *Exchangeable branching processes in filtering and finance.*

We will start by building a case for weakly-interacting branching particle systems in filtering, option pricing and insurance. Then, we will discuss some of the convergence properties for a class of such filters with a flexible resampling scheme as the number of particles increases. The key tools are exchangeability and coupling to a McKean-Vlasov particle system that can also be used to predict performance. (Received July 16, 2017)