



# Change of measure in the lockdown particle system

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We perform various changes of measure in the lockdown particle system of Donnelly and Kurtz. The first example is a product type h-transform related to conditioning a Generalized Fleming Viot process without mutation on coexistence of some genetic types in remote time. We give a pathwise construction of this h-transform by just "forgetting" some reproduction events in the lockdown particle system. We also provide an intertwining relationship for the Wright Fisher diffusion and explicit the associated pathwise decomposition. The second example, called the linear or additive h-transform, concerns a wider class of measure valued processes with spatial motion. Applications include: -a simple description of the additive h-transform of the Generalized Fleming Viot process, which confirms a suggestion of Overbeck for the usual Fleming Viot process -an immortal particle representation for the additive h-transform of the Dawson Watanabe process.

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