# Perturbative Gradient Flow Discussion

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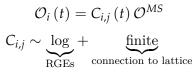
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Perturbative Discussion

## Perturbative Short Flow-Time Expansion



### RGEs

- LEFT SFTEs (ÒLC, Stoffer, WIP)
- Scalar QCD at 2-loops (talk by Robert H.)
- SMEFT SFTEs (talk by Janosch)

Connection to lattice

- Neutron electric dipole moment SFTEs (talk by Andrea, after this discussion)
- Neutral meson mixing or meson lifetimes (talks by Matthew and Jonas)
- Quark mass determination (talks by Hiromasa and Robert M.)

- Gradient Flow for LEFT and SMEFT renormalization: Gradient Flow vs the rest
- nEDM: SFTEs at 2 loops, and uncertainties in lattice matrix elements
- Background Field Method to avoid gauge variant operators. Or on-shell vs off-shell?
- $\gamma_5$  scheme choices
- Lattice physicists: are there any SFTEs that you think would be important to do?