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## PUBLICATIONS

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### Thesis

- Renormalization with the gradient flow  
M.D. Rizik  
Ph.D. Michigan State U. (2023)

### Peer-Reviewed

- One-loop matching of the CP-odd three-gluon operator to the gradient flow  
Ò.L. Crosas, C.J. Monahan, M.D. Rizik, A. Shindler, P. Stoffer  
Physics Letters B, 847:138301 (2023)  
[arXiv:2308.16221](#)
- One-loop matching for quark dipole operators in a gradient-flow scheme  
E. Mereghetti, C.J. Monahan, M.D. Rizik, A. Shindler, P. Stoffer  
J. High Energy Physics 2022, 50 (2022)  
[arXiv:2111.11449](#)
- Nonperturbative renormalization of the quark chromoelectric dipole moment with the gradient flow: Power divergences  
J. Kim, T. Luu, M.D. Rizik, A. Shindler  
Physical Review D 104, 074516 (2021)  
[arXiv:2106.07633](#)
- Short flow-time coefficients of CP-violating operators  
M.D. Rizik, C.J. Monahan, A. Shindler  
Physical Review D 102, 034509 (2020)  
[arXiv:2005.04199](#)

### Proceedings

- Two-loop matching of the chromo-magnetic dipole operator with the gradient flow  
J. Borgulat, R. Harlander, M.D. Rizik, A. Shindler  
Proceedings from the 39<sup>th</sup> International Symposium on Lattice Field Theory  
PoS LATTICE2022 (2022) 313  
[arXiv:2212.09824](#)
- A novel nonperturbative renormalization scheme for local operators  
A. Hasenfratz, C.J. Monahan, M.D. Rizik, A. Shindler, O. Witzel  
Proceedings from the 38<sup>th</sup> International Symposium on Lattice Field Theory  
PoS LATTICE2021 (2021) 155  
[arXiv:2201.09740](#)
- Renormalization of CP-violating pure gauge operators in perturbative QCD using the gradient flow  
M.D. Rizik, C.J. Monahan, A. Shindler  
Proceedings from the 36<sup>th</sup> International Symposium on Lattice Field Theory  
PoS LATTICE2018 (2018) 215  
[arXiv:1810.05637](#)

### In Preparation

- A gradient flow lattice renormalization scheme  
A. Hasenfratz, C.J. Monahan, M.D. Rizik, A. Shindler, O. Witzel  
Physical Review Letters, 2024
- A combinatorial approach to Schwinger parametrization  
M.D. Rizik  
Journal of Mathematical Physics, 2024