

Simone Murro

List of Publications

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Publications

23. "Notions of Fermionic Entropies of a Causal Fermion System" to appear on *Mathematical Physics, Analysis and Geometry* (with F. Finster, R. H. Jonsson, M. Lottner and A. Much)
22. "Wick rotation of linearized gravity in Gaussian time and Calderón projectors" to appear on *Annales Henri Poincaré* (with C. Gérard and M. Wrochna)
21. "The Quantization of Maxwell Theory in the Cauchy Radiation Gauge: Hodge Decomposition and Hadamard States" *Journal of London Mathematical Society* (2024) vol 110 (with G. Schmid)
20. "On boundary conditions for linearised Einstein's equations" *Applied Mathematics Letters* (2024) vol 158: 109210 (with M. Capoferri and G. Schmid)
19. "The five gradients inequality on differentiable manifolds" *Journal de Mathématiques Pures et Appliquées* (2024) vol 187: 294-328 (with S. Di Marino and E. Radici)
18. "On the Cauchy problem for the Fadarday tensor on globally hyperbolic manifolds with timelike boundary" *Rendiconti Lincei Matematica e Applicazioni* (2024) vol 34: 809-829 (with N. Drago and N. Ginoux)
17. "Global and microlocal aspects of Dirac operators: propagators and Hadamard states" to appear on *Advances in Differential Equations* (with M. Capoferri)
16. "The quantization of Proca fields on globally hyperbolic spacetimes: Hadamard states and Møller operators" *Annales Henri Poincaré* (2023) vol 24: 3055-3111 (with V. Moretti and D. Volpe)
15. "Paracausal deformations of Lorentzian metrics and Møller isomorphisms in algebraic quantum field theory" *Selecta Mathematica New Series* vol 29: 56 (with V. Moretti and D. Volpe)
14. "Møller operators and Hadamard states for Dirac fields with MIT boundary conditions" *Documenta Mathematica* (2022) vol 27: 1693-1737 (with N. Drago and N. Ginoux)
13. "On the Cauchy problem for Friedrichs systems on globally hyperbolic manifolds with timelike boundary" *Advances in Differential Equations* (2022) vol 27: 497-542 (with N. Ginoux)
12. "Injective tensor products in strict deformation quantization" *Mathematical Physics, Analysis and Geometry* (2022) vol 25: 2 (with C.J.F. van de Ven)
11. "Intertwining operators for symmetric hyperbolic systems on globally hyperbolic manifolds" *Annals of Global Analysis and Geometry* (2021) vol 59: 1-25 (with D. Volpe)
10. "On the uniqueness of invariant states" *Advances in Mathematics* (2021) vol 376: 107445 (with F. Bambozzi)
9. "The well-posedness of the Cauchy problem for the Dirac operator on globally hyperbolic manifolds with timelike boundary" *Documenta Mathematica* (2020) vol 25: 737-765 (with N. Große)
8. "The Fermionic Signature Operator in De Sitter Spacetime" *Journal of Mathematical Analysis and Applications* (2020) vol 485: 123808 (with C. Dappiaggi, F. Finster and E. Radici)
7. "Invariant states on noncommutative tori" *International Mathematics Research Notices* (2019) vol 2021: 3299-3313 (with F. Bambozzi and N. Pinamonti)
6. "A new class of Fermionic Projectors: Møller operators and mass oscillation properties" *Letters in Mathematical Physics* (2017) vol 117: 2433-2451 (with N. Drago)

5. "The Fermionic Signature Operator and Quantum States in Rindler Space-time" *Journal of Mathematical Analysis and Applications* (2017) vol 454: 385-411 (with F. Finster and C. Röken)
4. "Non-existence of natural states for Abelian Chern-Simons theory" *Journal of Geometry and Physics* (2017) vol 116: 119-123 (with C. Dappiaggi and A. Schenkel)
3. "Wavefront sets and polarizations on supermanifolds" *Journal of Mathematical Physics* (2017) vol 58: 023504 (with C. Dappiaggi, H. Gimperlein and A. Schenkel)
2. "The fermionic projector in a time-dependent external potential: mass oscillation property and Hadamard states" *Journal of Mathematical Physics* (2016) vol 57: 072303 (with F. Finster and C. Röken)
1. "Radiative observables for linearized gravity on asymptotically flat spacetimes and their boundary induced states" *Journal of Mathematical Physics* (2014) vol 55: 082301 (with M. Benini and C. Dappiaggi)

Pre-print

2. "Noncommutative Gelfand Duality: the algebraic case " arXiv:2411.11816 [math.AG] (2024) (with F. Bambozzi and M. Capoferri)
1. "The fermionic entanglement entropy of causal diamonds in two-dimensional Minkowski space " arXiv:2407.05292 [math-ph] (2024) (with F. Finster, M. Lottner and A. Much)

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