



## Fatih Dinc

Ph.D. Student in Applied Physics, admitted Autumn 2019

### Publications

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#### PUBLICATIONS

- **Multidimensional super- and subradiance in waveguide quantum electrodynamics** *PHYSICAL REVIEW RESEARCH*  
Dinc, F., Hayward, L. E., Branczyk, A. M.  
2020; 2 (4)
- **Diagrammatic approach for analytical non-Markovian time evolution: Fermi's two-atom problem and causality in waveguide quantum electrodynamics** *PHYSICAL REVIEW A*  
Dinc, F.  
2020; 102 (1)
- **Exact Markovian and non-Markovian time dynamics in waveguide QED: collective interactions, bound states in continuum, superradiance and subradiance** *QUANTUM*  
Dinc, F., Ercan, I., Branczyk, A. M.  
2019; 3
- **The effective geometry Monte Carlo algorithm: Applications to molecular communication** *PHYSICS LETTERS A*  
Dinc, F., Thiele, L., Akdeniz, B.  
2019; 383 (22): 2594–2603
- **A General Analytical Approximation to Impulse Response of 3-D Microfluidic Channels in Molecular Communication** *IEEE TRANSACTIONS ON NANOBIOSCIENCE*  
Dinc, F., Akdeniz, B., Pusane, A., Tugcu, T.  
2019; 18 (3): 396–403
- **Analytical derivation of the impulse response for the bounded 2-D diffusion channel** *PHYSICS LETTERS A*  
Dinc, F., Akdeniz, B., Erol, E., Gokay, D., Tekgul, E., Pusane, A., Tugcu, T.  
2019; 383 (14): 1589–1600
- **Analytical estimation for the impulse response of an n-dimensional diffusion channel with an absorbing receiver** *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*  
Dinc, F.  
2019; 52 (11)
- **Non-Markovian super-superradiance in a linear chain of up to 100 qubits** *Physical Review Research*  
Dinc, F., Branczyk, A.  
2019; 1 (3): 032042
- **Effective Geometry Monte Carlo: A Fast and Reliable Simulation Framework for Molecular Communication** *IEEE ACCESS*  
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2019; 7: 28635–50
- **Increased yield of MoS<sub>2</sub> monolayer exfoliation through the bimetallic corrosion of aluminum** *APPLIED PHYSICS LETTERS*  
Dinc, F., Ertop, O., Sonmez, B., Zhao, P., Raegen, A. N., Forrest, J. A., Mutlu, S.

2018; 113 (21)

- **Single photon two-level atom interactions in 1-D dielectric waveguide: quantum mechanical formalism and applications** *OPTICAL AND QUANTUM ELECTRONICS*  
Dinc, F., Ercan, I.  
2018; 50 (11)
- **Quantum mechanical treatment of two-level atoms coupled to continuum with an ultraviolet cutoff** *JOURNAL OF PHYSICS A-MATHEMATICAL AND THEORETICAL*  
Dinc, F., Ercan, I.  
2018; 51 (35)
- **Impulse Response of the Molecular Diffusion Channel With a Spherical Absorbing Receiver and a Spherical Reflective Boundary** *IEEE Transactions on Molecular, Biological and Multi-Scale Communications*  
Dinc, F., Akdeniz, B. C., Pusane, A. E., Tugcu, T.  
2018; 4 (2)