# Roshan Krishna Kumar

List of Publications by Year
in descending order



| | | | |
|---|---|---|---|
| 21 papers | 2,737 citations | 516215 16 h-index | 676716 22 g-index |
| 23 all docs | 23 docs citations | 23 times ranked | 3805 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | High electron mobility, quantum Hall effect and anomalous optical response in atomically thin InSe. Nature Nanotechnology, 2017, 12, 223-227. | 15.6 | 996 |
| 2 | Negative local resistance caused by viscous electron backflow in graphene. Science, 2016, 351, 1055-1058. | 6.0 | 516 |
| 3 | Superballistic flow of viscous electron fluid through graphene constrictions. Nature Physics, 2017, 13, 1182-1185. | 6.5 | 288 |
| 4 | Measuring Hall viscosity of grapheneâ€™s electron fluid. Science, 2019, 364, 162-165. | 6.0 | 197 |
| 5 | Fluidity onset in graphene. Nature Communications, 2018, 9, 4533. | 5.8 | 136 |
| 6 | High-temperature quantum oscillations caused by recurring Bloch states in graphene superlattices. Science, 2017, 357, 181-184. | 6.0 | 117 |
| 7 | Graphene ballistic nano-rectifier with very high responsivity. Nature Communications, 2016, 7, 11670. | 5.8 | 74 |
| 8 | Giant oscillations in a triangular network of one-dimensional states in marginally twisted graphene. Nature Communications, 2019, 10, 4008. | 5.8 | 67 |
| 9 | High-order fractal states in graphene superlattices. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5135-5139. | 3.3 | 63 |
| 10 | Excess resistivity in graphene superlattices caused by umklapp electronâ€“electron scattering. Nature Physics, 2019, 15, 32-36. | 6.5 | 46 |
| 11 | Control of electron-electron interaction in graphene by proximity screening. Nature Communications, 2020, 11, 2339. | 5.8 | 46 |
| 12 | Out-of-equilibrium criticalities in graphene superlattices. Science, 2022, 375, 430-433. | 6.0 | 34 |
| 13 | Nano-imaging photoresponse in a moirÃ© unit cell of minimally twisted bilayer graphene. Nature Communications, 2021, 12, 1640. | 5.8 | 29 |
| 14 | Strong magnetophonon oscillations in extra-large graphene. Nature Communications, 2019, 10, 3334. | 5.8 | 25 |
| 15 | Long-range ballistic transport of Brown-Zak fermions in graphene superlattices. Nature Communications, 2020, 11, 5756. | 5.8 | 25 |
| 16 | Minibands in twisted bilayer graphene probed by magnetic focusing. Science Advances, 2020, 6, eaay7838. | 4.7 | 21 |
| 17 | Graphene Triangular Ballistic Rectifier: Fabrication and Characterisation. Journal of Electronic Materials, 2017, 46, 3942-3948. | 1.0 | 16 |
| 18 | Magnetophonon spectroscopy of Dirac fermion scattering by transverse and longitudinal acoustic phonons in graphene. Physical Review B, 2019, 100, . | 1.1 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Scaling approach to tight-binding transport in realistic graphene devices: The case of transverse magnetic focusing. Physical Review B, 2016, 94, . | 1.1 | 15 |
| 20 | Grapheneâ€™s non-equilibrium fermions reveal Doppler-shifted magnetophonon resonances accompanied by Mach supersonic and Landau velocity effects. Nature Communications, 2021, 12, 6392. | 5.8 | 5 |
| 21 | Magnetization Signature of Topological Surface States in a Nonâ€Symmorphic Superconductor. Advanced Materials, 2021, 33, e2103257. | 11.1 | 3 |