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Superconductivity and Correlations in Alternating Twist Quadrilayer Graphene

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- Moiré materials realized by controlling the twist between different atomic layers represent an emerging family of crystals with unique electronic properties
- At certain magic angles the electron velocity is greatly reduced, leading to spectacular effects like superconductivity, and magnetism
- We demonstrate the emergence superconductivity, and correlated insulators in an alternating twist four-layer graphene structure
- This achievement is important as it demonstrates magic angle hierarchy in graphene multilayers, achieved through accurate control of multiple twist angles in a moiré material

G. W. Burg, E. Khalaf, Y. Wang, K. Watanabe, T. Taniguchi, E. Tutuc, *Nature Materials* 21, 884 (2022),

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