Stanford

Giovanni Scuri

Postdoc Res Affiliate-5, Ginzton, E.L. Laboratory

Bio

ACADEMIC APPOINTMENTS

- Postdoc Res Affiliate-5, Ginzton, E.L. Laboratory

Publications

PUBLICATIONS

- **Toward quantum sensing of electron beams using solid-state spins.** *Proceedings of the National Academy of Sciences of the United States of America*

  Grzesik, J. M., Catanzaro, D., Roques-Carmes, C., Rosenthal, E. I., van de Stolpe, G. L., Karnieli, A., Scuri, G., Biswas, S., Leedle, K. J., Black, D. S., Byer, R. L., Kaminer, I., England, et al

  2026; 123 (25): e2531808123

- **Three-wave-mixing element with quantum paraelectric materials** *PHYSICAL REVIEW APPLIED*

  Rosenthal, E. I., Wang, C. S., Sloan, J., Scuri, G., Shi, Y., Pezeshki, K., Noertoft, P., Vuckovic, J., Anderson, C. P.

  2026; 25 (2)

- **Quantum critical electro-optic and piezo-electric nonlinearities.** *Science (New York, N.Y.)*

  Anderson, C. P., Scuri, G., Chan, A., Eun, S., White, A. D., Ahn, G. H., Jilly, C., Safavi-Naeini, A., Van Gasse, K., Li, L., Vučković, J.

  2025; 390 (6771): 394-399

- **Epitaxially Defined Luttinger Liquids on MoS_{2} Bicrystals.** *Physical review letters*

  Deng, B., Ahn, H., Wang, J., Moon, G., Han, C., Dongre, N., Lei, C., Scuri, G., Sung, J., Brutschea, E., Watanabe, K., Taniguchi, T., Zhang, et al

  2025; 134 (4): 046301

- **An electronic microemulsion phase emerging from a quantum crystal-to-liquid transition** *NATURE PHYSICS*

  Sung, J., Wang, J., Esterlis, I., Volkov, P. A., Scuri, G., Zhou, Y., Brutschea, E., Taniguchi, T., Watanabe, K., Yang, Y., Morales, M. A., Zhang, S., Millis, et al

  2025

- **Single-Shot Readout and Weak Measurement of a Tin-Vacancy Qubit in Diamond** *PHYSICAL REVIEW X*

  Rosenthal, E. I., Biswas, S., Scuri, G., Lee, H., Stein, A. J., Kleidermacher, H. C., Grzesik, J., Rugar, A. E., Aghaeimeibodi, S., Riedel, D., Titze, M., Bielejec, E. S., Choi, et al

  2024; 14 (4)

- **Controlled interlayer exciton ionization in an electrostatic trap in atomically thin heterostructures.** *Nature communications*

  Joe, A. Y., Mier Valdivia, A. M., Jauregui, L. A., Pistunova, K., Ding, D., Zhou, Y., Scuri, G., De Greve, K., Sushko, A., Kim, B., Taniguchi, T., Watanabe, K., Hone, et al

  2024; 15 (1): 6743

- **Scalable classical and quantum photonics**

  Vuckovic, J., Ahn, G., Biswas, S., Borit, J., Catanzaro, D., Eun, S., Grzesik, Y., Guidry, M., Kleidermacher, H., Lee, H., Le, K., Lu, J., Luhtaru, et al

  IEEE.2024

- **An Inverse-Designed Nanophotonic Interface for Excitons in Atomically Thin Materials.** *Nano letters*

  Gelly, R. J., White, A. D., Scuri, G., Liao, X., Ahn, G. H., Deng, B., Watanabe, K., Taniguchi, T., Vučković, J., Park, H.

  2023

- **Microwave Spin Control of a Tin-Vacancy Qubit in Diamond** *PHYSICAL REVIEW X*

  Rosenthal, E. I., Anderson, C. P., Kleidermacher, H. C., Stein, A. J., Lee, H., Grzesik, J., Scuri, G., Rugar, A. E., Riedel, D., Aghaeimeibodi, S., Ahn, G., Van Gasse, K., Vuekovie, et al

  2023; 13 (3)