

Stanford

Yanwen Sun

Staff Scientist, SLAC National Accelerator Laboratory

Publications

PUBLICATIONS

- **A versatile pressure-cell design for studying ultrafast molecular-dynamics in supercritical fluids using coherent multi-pulse x-ray scattering.** *The Review of scientific instruments*
Muhunthan, P., Li, H., Vignat, G., Toro, E. R., Younes, K., Sun, Y., Sokaras, D., Weiss, T., Rajkovic, I., Osaka, T., Inoue, I., Song, S., Sato, et al
2024; 95 (1)
- **Low-loss stable storage of 1.2 & ANGS; X-ray pulses in a 14 m Bragg cavity** *NATURE PHOTONICS*
Margraf, R., Robles, R., Halavanau, A., Kryzywinski, J., Li, K., MacArthur, J., Osaka, T., Sakdinawat, A., Sato, T., Sun, Y., Tamasaku, K., Huang, Z., Marcus, et al
2023
- **A Contrast Calibration Protocol for X-ray Speckle Visibility Spectroscopy** *APPLIED SCIENCES-BASEL*
Sun, Y., Esposito, V., Hart, P., Hansson, C., Li, H., Nakahara, K., MacArthur, J., Nelson, S., Sato, T., Song, S., Sun, P., Fuoss, P., Sutton, et al
2021; 11 (21)
- **Generation of highly mutually coherent hard-x-ray pulse pairs with an amplitude-splitting delay line** *PHYSICAL REVIEW RESEARCH*
Li, H., Sun, Y., Vila-Comamala, J., Sato, T., Song, S., Sun, P., Seaberg, M. H., Wang, N., Hastings, J. B., Dunne, M., Fuoss, P., David, C., Sutton, et al
2021; 3 (4)
- **Nonuniform Flow Dynamics Probed by Nanosecond X-Ray Speckle Visibility Spectroscopy** *PHYSICAL REVIEW LETTERS*
Sun, Y., Carini, G., Chollet, M., Decker, F., Dunne, M., Fuoss, P., Hruszkewycz, S. O., Lane, T. J., Nakahara, K., Nelson, S., Robert, A., Sato, T., Song, et al
2021; 127 (5)
- **Accurate contrast determination for X-ray speckle visibility spectroscopy.** *Journal of synchrotron radiation*
Sun, Y., Montana-Lopez, J., Fuoss, P., Sutton, M., Zhu, D.
2020; 27 (Pt 4): 999-1007
- **Accurate contrast determination for X-ray speckle visibility spectroscopy** *JOURNAL OF SYNCHROTRON RADIATION*
Sun, Y., Montana-Lopez, J., Fuoss, P., Sutton, M., Zhu, D.
2020; 27: 999–1007
- **Realizing split-pulse x-ray photon correlation spectroscopy to measure ultrafast dynamics in complex matter** *PHYSICAL REVIEW RESEARCH*
Sun, Y., Dunne, M., Fuoss, P., Robert, A., Zhu, D., Osaka, T., Yabashi, M., Sutton, M.
2020; 2 (2)
- **Design of an amplitude-splitting hard x-ray delay line with subnanoradian stability** *OPTICS LETTERS*
Li, H., Sun, Y., Sutton, M., Fuoss, P., Zhu, A.
2020; 45 (7): 2086–89
- **Speckle correlation as a monitor of X-ray free-electron laser induced crystal lattice deformation.** *Journal of synchrotron radiation*
Plumley, R. n., Sun, Y. n., Teitelbaum, S. n., Song, S. n., Sato, T. n., Chollet, M. n., Nelson, S. n., Wang, N. n., Sun, P. n., Robert, A. n., Fuoss, P. n., Sutton, M. n., Zhu, et al
2020; 27 (Pt 6): 1470–76
- **Compact hard x-ray split-delay system based on variable-gap channel-cut crystals** *OPTICS LETTERS*
Sun, Y., Wang, N., Song, S., Sun, P., Chollet, M., Sato, T., van Driel, T. B., Nelson, S., Plumley, R., Montana-Lopez, J., Teitelbaum, S. W., Haber, J., Hastings, et al
2019; 44 (10): 2582–85

● **Higher-order modes at FELs: a machine interpretation**

Sun, P., Sun, Y., Zhu, D., Song, S., Li, H., Chollet, M., Seaberg, M., Hastings, J. B., Robert, A., Sutton, M., Feng, Y., Tschentscher, T., Patthey, et al
SPIE-INT SOC OPTICAL ENGINEERING.2019

● **Design of a Compact Hard X-ray Split-Delay System Based on Variable-Gap Channelcut Crystals**

Sun, Y., Robert, A., Zhu, D., Gwo, S., Huang, D. J., Wei, D. H.
AMER INST PHYSICS.2019

● **Pulse intensity characterization of the LCLS nanosecond double-bunch mode of operation** *JOURNAL OF SYNCHROTRON RADIATION*

Sun, Y., Decker, F., Turner, J., Song, S., Robert, A., Zhu, D.
2018; 25: 642–49

● **Direct experimental observation of the gas density depression effect using a two-bunch X-ray FEL beam**

Feng, Y., Schafer, D. W., Song, S., Sun, Y., Zhu, D., Krzywinski, J., Robert, A., Wu, J., Decker, F.
INT UNION CRYSTALLOGRAPHY.2018: 145–50

● **Anatomically Defined and Functionally Distinct Dorsal Raphe Serotonin Sub-systems.** *Cell*

Ren, J. n., Friedmann, D. n., Xiong, J. n., Liu, C. D., Ferguson, B. R., Weerakkody, T. n., DeLoach, K. E., Ran, C. n., Pun, A. n., Sun, Y. n., Weissbourd, B. n., Neve, R. L., Huguenard, et al
2018

● **Development of a Hard X-ray Split-Delay System at the Linac Coherent Light Source**

Zhu, D., Sun, Y., Schafer, D. W., Shi, H., James, J. H., Gumerlock, K. L., Osier, T. O., Whitney, R., Zhang, L., Nicolas, J., Smith, B., Badara, A. H., Robert, et al
SPIE-INT SOC OPTICAL ENGINEERING.2017

● **Characterization of the LCLS "nanosecond two-bunch" mode for X-ray Speckle Visibility Spectroscopy experiments**

Sun, Y., Zhu, D., Song, S., Decker, F., Sutton, M., Ludwig, K., Roseker, W., Gruebel, G., Hruszkewycz, S., Stephenson, G., Fuoss, P. H., Robert, A., Tschentscher, et al
SPIE-INT SOC OPTICAL ENGINEERING.2017

● **DESIGN OF A MULTI-DOF MOTION SYSTEM FOR X-RAY SPLIT AND DELAY**

Shi, H., Zhu, D., Schafer, D. W., Barada, A. H., Sun, Y., Zhang, L., Gumerlock, K. L., James, J. H., Osier, T. O., Whitney, R. A., Smith, B. E., Robert, A., ASME
AMER SOC MECHANICAL ENGINEERS.2017