

Dimitri Khaghani

Associate Scientist, SLAC National Accelerator Laboratory

Publications

PUBLICATIONS

- **Role of relativistic laser intensity on isochoric heating of metal wire targets** *OPTICS EXPRESS*
Martynenko, A. S., Pikuz, S. A., Antonelli, L., Barbato, F., Boutoux, G., Giuffrida, L., Honrubia, J. J., Hume, E., Jacoby, J., Khaghani, D., Lancaster, K., Neumayer, P., Rosmej, et al
2021; 29 (8): 12240-12251
- **X-ray spectroscopy evidence for plasma shell formation in experiments modeling accretion columns in young stars** *MATTER AND RADIATION AT EXTREMES*
Filippov, E. D., Skobelev, I., Revet, G., Chen, S. N., Khiar, B., Ciardi, A., Khaghani, D., Higginson, D. P., Pikuz, S. A., Fuchs, J.
2019; 4 (6)
- **Properties of laser-driven hard x-ray sources over a wide range of laser intensities** *PHYSICS OF PLASMAS*
Borm, B., Khaghani, D., Neumayer, P.
2019; 26 (2)
- **Generation of keV hot near-solid density plasma states at high contrast laser-matter interaction** *PHYSICS OF PLASMAS*
Rosmej, O. N., Samsonova, Z., Hoefler, S., Kartashov, D., Arda, C., Khaghani, D., Schoenlein, A., Zaehner, S., Hoffmann, A., Loetzsch, R., Saevert, A., Uschmann, I., Povarnitsyn, et al
2018; 25 (8)
- **Enhancement of Quasistationary Shocks and Heating via Temporal Staging in a Magnetized Laser-Plasma Jet** *PHYSICAL REVIEW LETTERS*
Higginson, D. P., Khiar, B., Revet, G., Beard, J., Blecher, M., Borghesi, M., Burdonov, K., Chen, S. N., Filippov, E., Khaghani, D., Naughton, K., Pepin, H., Pikuz, et al
2017; 119 (25): 255002
- **Laboratory unraveling of matter accretion in young stars** *SCIENCE ADVANCES*
Revet, G., Chen, S. N., Bonito, R., Khiar, B., Filippov, E., Argiroffi, C., Higginson, D. P., Orlando, S., Beard, J., Blecher, M., Borghesi, M., Burdonov, K., Khaghani, et al
2017; 3 (11): e1700982
- **Enhancing laser-driven proton acceleration by using micro-pillar arrays at high drive energy** *SCIENTIFIC REPORTS*
Khaghani, D., Lobet, M., Borm, B., Burr, L., Gaertner, F., Gremillet, L., Movsesyan, L., Rosmej, O., Toimil-Molaes, M., Wagner, F., Neumayer, P.
2017; 7: 11366
- **Detailed characterization of laser-produced astrophysically-relevant jets formed via a poloidal magnetic nozzle** *HIGH ENERGY DENSITY PHYSICS*
Higginson, D. P., Revet, G., Khiar, B., Beard, J., Blecher, M., Borghesi, M., Burdonov, K., Chen, S. N., Filippov, E., Khaghani, D., Naughton, K., Pepin, H., Pikuz, et al
2017; 23: 48-59
- **X-Ray Emission Generated By Laser-Produced Plasmas From Dielectric Nanostructured Targets**
Samsonova, Z., Hoefler, S., Hoffmann, A., Landgraf, B., Zuerch, M., Uschmann, I., Khaghani, D., Rosmej, O., Neumayer, P., Roeder, R., Trefflich, L., Ronning, C., Foerster, et al
AMER INST PHYSICS.2017
- **X-Ray Emission of Exotic Ions in Dense Plasmas**
Rosmej, F. B., Khaghani, D., Dozieres, M., Dachicourt, R., Smid, M., Renner, O., Benredjem, D.
AMER INST PHYSICS.2017

- **Improvement of density resolution in short-pulse hard x-ray radiographic imaging using detector stacks** *REVIEW OF SCIENTIFIC INSTRUMENTS*
Borm, B., Gaertner, F., Khaghani, D., Neumayer, P.
2016; 87 (9): 093104
- **Generation and characterization of warm dense matter isochorically heated by laser-induced relativistic electrons in a wire target** *EPL*
Schoenlein, A., Boutoux, G., Pikuz, S., Antonelli, L., Batani, D., Debayle, A., Franz, A., Giuffrida, L., Honrubia, J. J., Jacoby, J., Khaghani, D., Neumayer, P., Rosmej, et al
2016; 114 (4)
- **K-shell spectroscopic diagnosis of suprathermal electrons at fusion-relevant environmental conditions**
Renner, O., Smid, M., Khaghani, D., Rosmej, F. B., IOP
IOP PUBLISHING LTD.2016
- **Parameters of supersonic astrophysically-relevant plasma jets collimating via poloidal magnetic field measured by x-ray spectroscopy method**
Filippov, E. D., Pikuz, S. A., Skobelev, I., Ryazantsev, S. N., Higginson, D. P., Khaghani, D., Revet, G., Chen, S. N., Fuchs, J., IOP
IOP PUBLISHING LTD.2016
- **X-ray opacity measurements in mid-Z dense plasmas with a new target design of indirect heating** *HIGH ENERGY DENSITY PHYSICS*
Dozieres, M., Thais, F., Bastiani-Ceccotti, S., Blenski, T., Fariaut, J., Foelsner, W., Gilleron, F., Khaghani, D., Pain, J., Reverdin, C., Rosmej, F., Silvert, V., Soullie, et al
2015; 17: 231-239
- **Exotic x-ray emission from dense plasmas** *JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS*
Rosmej, F. B., Dachicourt, R., Deschaud, B., Khaghani, D., Dozieres, M., Smid, M., Renner, O.
2015; 48 (22)
- **Electron-ion temperature equilibration in warm dense tantalum** *HIGH ENERGY DENSITY PHYSICS*
Hartley, N. J., Belancourt, P., Chapman, D. A., Doeppner, T., Drake, R. P., Gericke, D. O., Glenzer, S. H., Khaghani, D., Lepape, S., Ma, T., Neumayer, P., Pak, A., Peters, et al
2015; 14: 1-5
- **Developments toward hard X-ray radiography on heavy-ion heated dense plasmas** *LASER AND PARTICLE BEAMS*
Li, K., Borm, B., Hug, F., Khaghani, D., Loether, B., Savran, D., Tahir, N. A., Neumayer, P.
2014; 32 (4): 631-637
- **Investigation of x-ray emission induced by hot electrons in dense Cu plasmas**
Smid, M., Renner, O., Rosmej, F. B., Khaghani, D.
IOP PUBLISHING LTD.2014