Stanford

Nicolas Lee

Research Engineer

Aeronautics and Astronautics

Bio

BIO

Nicolas Lee is currently a Research Engineer in Aeronautics and Astronautics at Stanford University, working primarily on asteroid resource characterization and CubeSat technologies. Previously, Nicolas was a Ph.D. student at Stanford studying meteoroid impact effects on spacecraft, and a W. M. Keck Institute for Space Studies postdoctoral scholar in aerospace at Caltech, researching technologies for robotically assembled space telecopes, membrane structures for space solar power applications, and small satellite high voltage electronics.

ACADEMIC APPOINTMENTS

- Research Engineer, Aeronautics and Astronautics

HONORS AND AWARDS

- Prize Postdoctoral Fellowship, W. M. Keck Institute for Space Studies (2013-2016)
- First place, Ernest K. Smith Student Paper Competition, USNC-URSI (2013)

PROFESSIONAL EDUCATION

- Ph.D., Stanford University , Aeronautics and Astronautics (2013)
- M.S., Stanford University , Aeronautics and Astronautics (2007)
- B.A.Sc., University of Toronto , Engineering Science - Aerospace (2005)

Research & Scholarship

PROJECTS

- Asteroid surface resource characterization through plasma analysis of meteoroid impact ejecta - Stanford University
- QB50 - Stanford University

Teaching

COURSES

2021-22

- Spacecraft Design: AA 236A (Win)
- Spacecraft Design Laboratory: AA 236B (Spr)

Publications

PUBLICATIONS

- **Estimation of hypervelocity impact parameters from measurements of optical flash** *INTERNATIONAL JOURNAL OF IMPACT ENGINEERING*

Goel, A., Lee, N., Close, S.
2015; 84: 54-63

- **A design algorithm for the placement of identical segments in a large spherical mirror** *Journal of Astronomical Telescopes, Instruments, and Systems*
  Lee, N., Pellegrino, S., Wu, Y.
  2015; 1 (2)
- **Detection of electromagnetic pulses produced by hypervelocity micro particle impact plasmas** *PHYSICS OF PLASMAS*
  Close, S., Linscott, I., Lee, N., Johnson, T., Strauss, D., Goel, A., Fletcher, A., Lauben, D., Srama, R., Mocker, A., Bugiel, S.
  2013; 20 (9)
- **Curved pleat folding for smooth wrapping** *PROCEEDINGS OF THE ROYAL SOCIETY A-MATHEMATICAL PHYSICAL AND ENGINEERING SCIENCES*
  Lee, N., Close, S.
  2013; 469 (2155)
- **Theory and experiments characterizing hypervelocity impact plasmas on biased spacecraft materials** *PHYSICS OF PLASMAS*
  Lee, N., Close, S., Goel, A., Lauben, D., Linscott, I., Johnson, T., Strauss, D., Bugiel, S., Mocker, A., Srama, R.
  2013; 20 (3)
- **Measurements of freely-expanding plasma from hypervelocity impacts** *INTERNATIONAL JOURNAL OF IMPACT ENGINEERING*
  Lee, N., Close, S., Lauben, D., Linscott, I., Goel, A., Johnson, T., Yee, J., FLETCHER, A., Srama, R., BUGIEL, S., Mocker, A., Colestock, P., Green, et al
  2012; 44: 40-49
- **Electromagnetic pulses generated by meteoroid impacts on spacecraft** *JOURNAL OF GEOPHYSICAL RESEARCH-SPACE PHYSICS*
  Close, S., Colestock, P., Cox, L., Kelley, M., Lee, N.
  2010; 115