

## Yrd. Doç. Dr. Onur Keskin

**Görevi:** Işık Üniversitesi Makine Mühendisliği Bölümü Öğretim Üyesi

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### Eğitim

**Doktora** 2008, Makine Mühendisliği Bölümü,  
University of Victoria, Canada

**Yüksek Lisans** 2003, Makine Mühendisliği Bölümü,  
University of Victoria, Canada

**Lisans** 2000, Makine Mühendisliği Bölümü,  
Yıldız Teknik Üniversitesi, İstanbul

### İş Deneyimi

**2012 – Yardımcı Doçent**

Işık Üniversitesi, Makine Mühendisliği Bölümü, İstanbul.

**2008 - 2012 Uzman Araştırmacı**

TUBİTAK – UEKAE (Ulusal Elektronik ve Kriptoloji Araştırma Enstitüsü), Gebze

**2000 -2008 Araştırmacı**

University of Victoria, Canada

### Araştırma Konuları

- Adaptive optics systems
- Deformable mirror technology
- Electro-optics
- Control system design and analysis
- Micro-optics
- Signal/image processing
- Micro-machining
- MEMS devices

### Verdiği Dersler

- Mühendislikte Hesaplamalı Yöntemler, Dinamik, Mukavemet (Işık Üniversitesi)
- Mühendislik Temelleri, Katı Mekaniği 1&2, Termodinamik, Dinamik, Makine Dinamiği, Akışkanlar Mekaniği 1&2, Bilgisayar Destekli Dizayn (University of Victoria)

### Ödüller

- University of Victoria Fellowship (2003-2004)
- Nominee for the Departmental Graduate Teaching Award in 2008 (University of Victoria)
- Nominee for Andy Farquharson Award for Excellence in Graduate Student Teaching in 2008 (University of Victoria)

## Yayınlar

### Journal Papers

- **O. Keskin**, "Derivation and numerical evaluation of an off-axis point spread function reconstruction from a dual deformable mirror adaptive optics system," *Astronomical Journal*, (under review), (2012).
- **O. Keskin**, R. Conan, P. Hampton, C. Bradley, "Derivation and Experimental Evaluation of a Point Spread Function from a Dual Deformable Mirror Adaptive Optics System," *Optical Engineering*, Vol.47, No. 4, p. 046601, 2008.
- P. J. Hampton, R. Conan, **O. Keskin**, C. Bradley, P. Agathoklis, "Self-characterization of linear and nonlinear adaptive optics systems," *Applied Optics*, Vol. 47, Issue 2, pp. 126-134, 2007.
- R. Conan, C. Bradley, P. Hampton, **O. Keskin**, A. Hilton, and C. Blain, "Distributed Modal Command for a Two Deformable Mirror Adaptive Optics System," *Applied Optics*, Vol. 46, Issue 20, pp. 4329-4340, 2007.
- **O. Keskin**, L. Jolissaint, C. Bradley, "A Hot Air Turbulence Generator for Adaptive Optics: Applications, Principles, and SLODAR Characterization," *Applied Optics*, Vol.45, issue 20, pp. 4888-4897, 2006.
- **O. Keskin**, P. Hampton, R. Conan, C. Bradley, A. Hilton, C. Blain, "Woofer Tweeter Adaptive Optics System," ", *Photons*, Vol. 4, No 1, CIPI (Canadian Institute for Photonic Innovations), pp. 34-37, 2006.

### Invited Papers

- **O. Keskin**, L. Jolissaint, C. Bradley, S. Dost, I. Sharf, "Hot Air Turbulence Generator for Multi-Conjugate Adaptive Optics", *Proceedings of SPIE, Advanced Wavefront Control: Methods, Devices, and Applications*, Vol. 5162, pp. 49-57, 2003.

### Conference Papers

- **O. Keskin**, "Electro-optics Free Space Optical Communication Systems", 4<sup>th</sup> Naval Systems Seminar, 2011
- **O. Keskin**, "Askeri Alanda Adaptif Optik Uygulama ile Serbest Uzay Haberleşme Sistemleri", *Cyber Warfare Symposium, SASAD*, 2010
- **O. Keskin**, "Numerical Evaluation of an Off-axis Point Spread Function Reconstruction from the Woofer/Tweeter Adaptive Optics System," *ISOT 2009 International Symposium on Optomechatronic Technologies*, 2009.
- H. Nasibov, **O. Keskin**, F. Hacizade, "High Resolution Digital Library of Cultural Heritage," *e-challenges e-2009*, 2009.

- **O. Keskin**, H. Nasibov, F. Hacizade, “*Hot-Air Atmospheric Turbulence Generator For The Improvement Of Laser Based Free-Space Communication Systems With Adaptive Optics Systems*,” ALT 09: 17<sup>th</sup> International Advanced Laser Technologies, 2009.
- **O. Keskin**, R. Conan, C. Bradley, “*Off-axis Point Spread Function Reconstruction from a dual Deformable Mirror Adaptive Optics System*,” SPIE Astronomical Telescopes and Instrumentation, 2008.
- **O. Keskin**, R. Conan, C. Bradley, “*Point Spread Function Reconstruction Using a Dual DM Adaptive Optics System*,” Adaptive Optics: Analysis and Methods Abstracts, Optical Society of America: Topical Meetings, 2007.
- R. Conan, C. Bradley, P. Hampton, **O. Keskin**, A. Hilton, C. Blain, “*UVic Woofer/Tweeter Test Bed: Status and Plans*,” Adaptive Optics: Analysis and Methods Abstracts, Optical Society of America: Topical Meetings, 2007.
- R. Conan, C. Bradley, P. Hampton, **O. Keskin**, A. Hilton, C. Blain, “*Performance Assessment of Laser Guide Star Wave Front Sensing*,” Adaptive Optics: Analysis and Methods Abstracts, Optical Society of America: Topical Meetings, 2007.
- C. Blain, R. Conan, C. Bradley, **O. Keskin**, P. Hampton, A. Hilton, “*Magnetic ALPAO and Piezo-Stack CILAS Deformable Mirrors Characterization*,” Adaptive Optics: Analysis and Methods Abstracts, Optical Society of America: Topical Meetings, 2007.
- **O. Keskin**, , P. Hampton, R. Conan, C. Bradley, A. Hilton, C. Blain, “*Woofer Tweeter Adaptive Optics Test Bench*,” IEEE/ proceedings of First NASA/ESA Conference on Adaptive Hardware and Systems , pp. 74-80, 2006.
- **O. Keskin**, R. Conan, C. Bradley, “*PSF Reconstruction from 2 DMs Woofer-Tweeter Adaptive Optics Bench*,” Proceedings of SPIE, Astronomical Telescopes and Instrumentation, Vol. 6272, pp. 156-165, 2006.
- R. Conan, P. Hampton, C. Bradley, **O. Keskin**, C. Blain, “*The Woofer-Tweeter Experiment*,” Proceedings of SPIE, Astronomical Telescopes and Instrumentation, Vol. 6272, pp. 64-73, 2006.
- L. Jolissaint, **O. Keskin**, C. Bradley, B. Wallace, A. Hilton “*Multiple-Layer Optical Turbulence Generator Principle and SLODAR Characterization: Preliminary Results*,” Proceedings of SPIE, Optics in Atmospheric Propagation and Adaptive Systems, Vol. 5572, pp. 256-261, 2004.
- B. Wallace, C. Bradley, H. Richardson, J. Kennedy, **O. Keskin**, P. Hampton, D. Robertson, L. Jolissaint, A. Hilton, “*Dual Conjugate Adaptive Optics Test bed: Progress Report*”, Proceedings of SPIE, Astronomical Adaptive Optics Systems and Applications, Vol. 5169, pp. 255-261, 2003.

### **Other Publications**

- **O.Keskin**, “Electro-optics Research at TUBITAK and Optical Link Secure Voice and Data Communication System”, MSI, Military Science & Intelligence, Oct. 2010
- “*Thirty Meter Telescope Construction Proposal*”, University of California, California Institute of Technology, The Association of Canadian Universities for Research in Astronomy, TMT Observatory Corporation, Sept. 2007

### **Support & Supervision of Master’s Thesis Project**

- “Pyramid wavefront sensor laboratory performance analysis,” Jeffrey Le Due at the University of Victoria Physics and Mechanical Engineering Departments
- “Optical Turbulator Design and Analysis,” Damián Gulich Centro de Investigaciones Opticas (CIOP), Argentina

### **Affiliations**

- The Optical Society of America (OSA)
- Society of Photo-Optical Instrumentation Engineers (SPIE)
- L.A.C.I.R Laboratory for Automation Communications and Information Systems Research, University of Victoria, Canada

### **Certificates**

- The Methodologies Concept and Applications of Project Management (PMI)
- PMP Certification (PMI, in progress)

### **Professional Trainings**

- Security Briefing
- Quantum Theory
- Principles of Quantum Mechanics
- Classical and Quantum Information Theory
- Classical and Quantum Coding
- Quantum Calculations
- Classical and Quantum Error Recovering
- Crypto Clearance Briefing

### **Managerial Responsibilities**

- International Academic Committee Member (TUBITAK UEKAE – National Research Institute of Electronics and Cryptology) 2010 – 2012

### **Languages**

- English (Fluent), French (Fluent), Turkish (Native)