

# Evan Anthes RICH

## PERSONAL DATA

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POSITION: Graduate Student at The University of Oklahoma  
DEPARTMENT: Homer L. Dodge Department of Physics and Astronomy  
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## EMPLOYMENT HISTORY

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AUGUST 2018 - CURRENT	Graduate Research Assistant at the University of Oklahoma
JUNE 2017 - MAY 2018	Advisor: John Wisniewski
JUNE 2013 - JULY 2016	
JUNE 2018 - JULY 2018	Graduate Teaching Assistant at the University of Oklahoma Instructor of Record for Physics II for life science majors
AUGUST 2016 - MAY 2017	Graduate Teaching Assistant at the University of Oklahoma Introduction to Astronomy Lab Instructor
JAN. 2012 - MAY 2013	Undergraduate Teaching Assistant at the University of Kansas Introduction to Astronomy Lab Instructor

## EDUCATION

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EST. SPRING 2019 **Ph.D., Physics**, University of Oklahoma  
Advisor: John Wisniewski

FALL 2016 **M.S., Physics**, University of Oklahoma

SPRING 2013 **B.S., Physics and Astronomy**, University of Kansas

## OBSERVING TIME ALLOCATIONS AND EXPERIENCE

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### Observations:

Summer 2012 Mount Laguna Observatory (1 meter) - 2 nights  
S15A-147 (observer) Subaru Telescope 8m - 2 × half nights  
S15B-003 (observer) Subaru Telescope 8m - 2 × half nights  
2016A-037 (PI) NASA IRTF 3m - 1.0 hour × 4 nights  
2016B-054 (PI) NASA IRTF 3m - 1.0 hour × 2 nights  
2017A-053 (PI) NASA IRTF 3m - 1.0 hour × 4 nights  
2017B-055 (PI) NASA IRTF 3m - 1.0 hour × 2 nights  
2018B-116 (PI) NASA IRTF 3m - 1.0 hour × 2 nights  
2018Q2-OU02 (PI) APO ARC 3.5m - 1.0 hour × 6 nights  
2018Q3-OU01 (PI) APO ARC 3.5m - 1.0 hour × 2 nights  
Spring 2015 APO ARC 3.5m - 3 nights. Observational Astrophysics Course  
Spring 2017 APO ARC 3.5m - 3 nights. Senior Graduate Student for Observational Astrophysics Course  
2018Q3-AS03 (PI) APO ARCSAT 0.5m - 2 weeks

**Observations cont.:**

HST Cycle25 Go-15437 (PI) - 6 orbits  
2018A-426 (PI) VLA - 4.2 hours

**Observational Techniques Used:**

Optical : imaging, spectroscopy, coronagraphic imaging  
Near-IR: imaging, spectroscopy, coronagraphic imaging  
Radio: imaging

**Software Experience:**

IRAF, PYTHON, IDL, CASA, FORTRAN

**AWARDS**

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- Science PI for HST Go-15437. Funding is worth \$ 77,060.00
- Science PI for VLA 2018A-426. Funding is worth \$ 2,200.00
- Neil Shafer-Ray Award for Outstanding Graduate Student in Physics for Summer 2018. Award worth \$ 2,000.00
- N. Wyman Storer Award for unselfish service to the Astronomy Program at the University of Kansas during the academic year 2012-2013.

**OUTREACH**

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- President of astronomy student outreach organization, Lunar Sooners, from April 2016 to April 2018.
- Vice-President of astronomy student outreach organization, Lunar Sooners, from April 2015 to April 2016

**REFEREED PUBLICATIONS**

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1. **Rich, E.A.**, Wisniewski, J.P., Currie, T., Fukagawa, M., Grady, C.A., Sitko, M.L., Pikhartova, M., Hashimoto, J., Abe, L., Brandner, W., Brandt, T.D., Carson, J.C., Chilcote, J., Dong, R., Feldt, M., Goto, M., Groff, T., Guyon, O., Hayano, Y., Hayashi, M., Hayashi, S., Henning, T., Kandori, K.W., Kasdin, J., Knapp, G.R., Kudo, T., Kusakabe, N., Kuzuhara, M., Kwon, J., Lozi, J., Martinache, F., Matsuo, T., Mayama, S., McElwain, M., Miyama, S., Morino, J., Moro-Martin, A., Nakagawa, T., Nishimura, T., Pyo, T., Serabyn, E., Suto, H., Russel, R.W., Suzuki, R., Takami, M., Takato, N., Terada, H., Thalmann, C., Turner, E., Uyama, T., Wagner, K., Watanabe, M., Yamada, T., Takami, H., Usuda, T., Tamura, M. Submitted 2018, "Multi-Epoch Direct Imaging and Time-Variable Scattered Light Morphology of the HD 163296 Protoplanetary Disk"
2. **Rich, E.A.**, Wisniewski, J.P., McElwain, M.W., Hashimoto, J., Kudo, T., Kusakabe, N., Okamoto, Y.K., Abe, L., Akiyama, E., Brandner, W., Brandt, T.D., Cargile, P., Carson, J.C., Currie, T.M., Egner, S., Feldt, M., Fukagawa, M., Goto, M., Grady, C.A., Guyon, O., Hayano, Y., Hayashi, M., Hayashi, S.S., Hebb, L., Heiminiaik, K.G., Henning, T., Hodapp, K.W., Ishii, M., Iye, M., Janson, M., Kandori, R., Knapp, G.R., Kuzuhara, M., Kwon, J., Matsuo, T., Mayama, S., Miyama, S., Momose, M., Morino, J., Moro-Martin, A., Nakagawa, T., Nishimura, T., Oh, D., Pyo, T., Schlieder, J., Serabyn, E., Sitko, M.L., Suenaga, T., Suto, H., Suzuki, R., Takahashi, Y.H., Takami, M., Takato, N., Terada, H., Thalmann, C., Tomono, D., Turner, E.L., Watanabe, M., Yamada, T., Takami, H., Usuda, T., Tamura, M. 2017, "The fundamental stellar parameters of FGK stars in the SEEDS survey", MNRAS, 472, 1736

3. Dong, R., van der Marel, N., Hashimoto, J., Chiang, E., Akiyama, E., Liu, H.B., Muto, T., Knapp, G.R., Tsukagoshi, T., Brown, J., Bruderer, S., Koyamatsu, K., Kudo, T., Ohashi, N., **Rich, E.**, Satoshi, M., Takami, M., Wisniewski, J., Yang, Y., Zhu, Z., Tamura, M. 2017 "The Sizes and Depletions of the Dust and Gas Cavities in the Transitional Disk J160421.7-213028", *ApJ*, 836, 201
4. **Rich, E. A.**, Wisniewski, J. P., Hashimoto, J., Timothy D. Brandt, T. D., Joseph C. Carson, J. C., Currie, T., Kuzuhara, M., Uyama, T. 2016, "VHS J125601.92-125723.9B: A Cloudy, Low-Mass Brown Dwarf in a Hierarchical Triple System", *ApJ*, 830, 114
5. **Rich, E. A.**, Wisniewski, J. P., Mayama, S., Brandt, T. D., Hashimoto, J., Kudo, T., Kusakabe, N., Espaillat, C., Abe, L., Akiyama, E., Brandner, W., Carson, J. C., Currie, T., Egner, S., Feldt, M., Follette, K., Goto, M., Grady, C. A., Guyon, O., Hayano, Y., Hayashi, M., Hayashi, S. S., Henning, T., Hodapp, K. W., and Ishii, M., Iye, M., Janson, M., Kandori, R., Knapp, G. R., Kuzuhara, M., Kwon, J., Matsuo, T., McElwain, M. W., Miyama, S., Morino, J. I., Moro-Martin, A., Nishimura, T., Pyo, T. S., Qi, C., Serabyn, E., Suenaga, T., Suto, H., Suzuki, R., Takahashi, Y. H., Takami, M., Takato, N., Terada, H., Thalmann, C., Tomono, D., Turner, E. L., Watanabe, M., Yamada, T., Takami, H., Usuda, T., Tamura, M. 2015, "Near-IR Polarized Scattered Light Imagery of the DoAr 28 Transitional Disk", *AJ*, 156, 86
6. Lee-Brown, D. B., Anthony-Twarog, B. J., Deliyannis, C. P., **Rich, E.**, Twarog, B. A. 2015, "Spectroscopic Abundances in the Open Cluster NGC 6819", 149, 121
7. Anthony-Twarog, B. J., Deliyannis, C. P., **Rich, E.**, Twarog, B. A. 2013, "A Lithium-rich Red Giant Below the Clump in the Kepler Cluster, NGC 6819", *ApJ*, 767, 19

## CONFERENCES AND WORKSHOPS

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- 2019 - The Time Variable Scattered Light Morphology of the HD 163296 Protoplanetary Disk; 233th AAS Meeting
- 2018 - 48th MidAmerican Regional Astrophysics Conference: Regional Meeting of the American Astronomical Society; Variability of the HD 163296 Protoplanetary Disk
- 2017 - Subaru/CHARAS Reduction Tutorial; 2017 April 14-16, Hilo Hawaii
- 2017 - The Fundamental Stellar Parameters of FGK Stars in the SEEDS Survey; 229th AAS Meeting, #240.29
- 2016 - 46th MidAmerican Regional Astrophysics Conference: Regional Meeting of the American Astronomical Society; VHS J125601.92-125723.9B: A Cloudy, Low-Mass Brown Dwarf in a Hierarchical Triple System
- 2015 - American Astronomy Society, Extreme Solar System meeting #3; Discovery of Low Mass Binary with Super Jupiter Companion
- 2015 - NAIC/NRAO NAASC Interferometry School
- 2015 - 45th MidAmerican Regional Astrophysics Conference; Finding the Fundamental Parameters of the SEEDS Survey using TGVIT
- 2014 - National Capital Area Disks Meeting 2014 Conference; Near-IR Scattered Light Imagery of the DoAr 28 Transitional Disk
- 2014 - 44th MidAmerican Regional Astrophysics Conference; Near-IR Scattered Light Imagery of the DoAr 28 Transitional Disk
- 2014 - Sagan Exoplanet Summer Workshop
- 2013 - High Dispersion Spectroscopic Analyses of the Open Clusters NGC 6819 and NGC 7789; AAS Meeting #221