

PRIV.-DOZ. DR. THORSTEN LISKER

Curriculum Vitae

PERSONAL DETAILS

Name: Thorsten Lisker
Contact: Astronomisches Rechen-Institut
Zentrum für Astronomie der Universität Heidelberg
Mönchhofstraße 12-14, D-69120 Heidelberg, Germany
Email: tlisker@ari.uni-heidelberg.de
Phone: +49 6221 54-1857
Fax: +49 6221 54-1888
Date of Birth: December 21, 1978
Place of Birth: Erlangen, Germany
Languages: German, English, French

EMPLOYMENT / EDUCATION

05/2007 – present Independent junior research group leader, University of Heidelberg
01/2012 Habilitation in Astronomy (university lecturer qualification)
10/2004 – 04/2007 Ph.D. (grade *summa cum laude*), University of Basel, Switzerland
Early-type Dwarf Galaxies in the Virgo Cluster: Nature or Nurture?
Supervisor: Prof. Dr. Eva K. Grebel
10/2003 – 09/2004 ETH Zürich, Switzerland
Graduate student
10/1998 – 09/2003 Diploma in Physics, University of Erlangen-Nürnberg, Germany
Hot subdwarf stars from the SPY project
Supervisor: Prof. Dr. Ulrich Heber

AWARDS AND HONOURS

2011 Ludwig Biermann Award of the Astronomische Gesellschaft
2010 Selected as Associate of the Heidelberg Academy of Sciences and Humanities
2009 Klaus-Georg and Sigrid Hengstberger Prize for Young Scientists
at the University of Heidelberg
2009 Karl Freudenberg Award, Heidelberg Academy of Sciences and Humanities
2008 Swiss Physical Society Award for excellent research work (general physics)
2007 Camille & Henry Dreyfus Award, University of Basel

PUBLICATIONS

- ★ *Excluding refereed proceedings:*
30 refereed publications; 24 as first, second, or third author; 10 as first author
- ★ *Including refereed proceedings:*
38 refereed publications; 32 as first, second, or third author; 13 as first author
- ★ 900+ citations

RESEARCH GRANTS

(including student fellowships obtained by individual application)

- ★ *ESO studentship*, 2011 – 2013, Ph.D. student Stefan Lieder
- ★ *The Importance of Binary Systems for Stellar Population Studies of Early-type Galaxies* (with Dr. Z. Li), 2011 – 2012
Funded by the Sino-German Center for Research Promotion and the DFG
- ★ *The progenitors of dwarf elliptical galaxies*, 2009 – 2011
Funded by the German Research Foundation (DFG)
- ★ *Daimler Benz foundation fellowship*, 2009 – 2011, Ph.D. student Joachim Janz
- ★ *LFGF fellowship*, 2009 – 2011, Ph.D. student Alexander Hansson

RESEARCH EXPERIENCE

- Research Areas:**
- ★ Dwarf galaxies in high- and low-density environments
 - ★ Cluster galaxy populations: semi-analytic models vs. reality
 - ★ Evolution of massive galaxies from high- z to today
 - ★ Structure and stellar populations of galaxies
 - ★ Hot subdwarf stars and binary stellar evolution

- International Team Projects:**
- ★ Coordinator of SMAKCED: Stellar Populations, Masses, and Kinematics of Cluster Early-type Dwarf Galaxies, 17 team members from 7 countries (<http://smakced.net>)

- Invited Visitor:**
- ★ ESO Visitor Programme (Feb./Mar. 2012)

Successful Observing Proposals

- **of PhD students:**
 - ★ NOT/NOTCam, 2012 (Janz et al., 44-036)
 - ★ ESO VLT/FORS, 2011 (Paudel et al., 087.B-0841)
 - ★ NOT/NOTCam, 2011 (Janz et al., 43-038)
 - ★ NOT/NOTCam, 2011 (Janz et al., 42-047)
 - ★ ESO VLT/FORS, 2010 (Hansson et al., 086.B-0873)
 - ★ ESO NTT/SOFI, 2010 (Janz et al., 085.B-0919)
 - ★ CAHA 3.5m/Omega2000, 2010 (Hansson et al., F10-3.5-070)
- **PI T. Lisker:**
 - ★ ESO VLT/FORS, 2010 (Lisker et al., 085.B-0971)
 - ★ CAHA 3.5m/LAICA, 2010 (Lisker et al., H10-3.5-056)
 - ★ NOT/NOTCam, 2009 (Lisker et al., 38-424)
 - ★ ESO VLT/FORS2, 2007 (Lisker et al., 078.B-0178)
 - ★ ESO 2.2m/WFI, 2006 (Lisker et al., 077.B-0785)
 - ★ NOT/MOSCA, 2006 (Lisker et al., 32-041)
- **Co-I T. Lisker:**
 - ★ TNG/NICS, 2012 (Toloba et al., CAT_155)
 - ★ NOT/NOTCam, 2012 (Toloba et al., 44-216)
 - ★ WHT/ISIS, 2011 (Toloba et al., W11AC090)
 - ★ WHT/ISIS, 2011 (Peletier et al., W11AN014)
 - ★ NOT/NOTCam, 2011 (Toloba et al., 43-206)
 - ★ NOT/NOTCam, 2011 (Toloba et al., 42-212)

- ★ ESO VLT/FORS, 2010 (Toloba et al., 085.A-1004)
- ★ WHT/ISIS, 2010 (Toloba et al., W10AC060)
- ★ WHT/ISIS, 2010 (Peletier et al., W10AN011)
- ★ TNG/NICS, 2010 (Toloba et al., CAT_193)
- ★ NOT/NOTCam, 2010 (Toloba et al., 41-217)
- ★ ESO 2.2m/WFI, 2009 (Pasquali et al., 084.A-9014)
- ★ ESO 2.2m/WFI, 2008 (Pasquali et al., 082.A-9016)
- ★ APO/DIS, 2005 (Debattista et al.)

SERVICE

- ★ Referee for peer reviewed journals A&A, AJ, ApJ, MNRAS
- ★ Referee for the DFG (2009) and the Research Foundation Flanders (FWO, 2011)
- ★ ESO Observing Programmes Committee Panelist (2 semesters from Oct. 2011)
- ★ MPIA Heidelberg Strategic Time Allocation Committee (2009-2011)
- ★ Heidelberg Joint Astronomical Colloquium Selection Committee (2009-2011)
- ★ Referee for PhD studentship applications to the International Max Planck Research School Heidelberg (2010)
- ★ Interviewer for applicants to the physics Bachelor/Master programme of Heidelberg University (2010, 2011)

MEMBERSHIPS

- ★ Astronomische Gesellschaft
- ★ European Physical Society

ORGANIZATION OF CONFERENCES, WORKSHOPS & SCHOOLS

- ★ Principal Organizer, *Does the redshift-zero universe look as predicted by models?*, Splinter meeting of the Annual AG Meeting, September 21–22, 2011, Heidelberg
- ★ Principal Organizer, *Early-type Dwarf Galaxies: Origin, Evolution, Characteristics*, October 18–20, 2010, Heidelberg
- ★ Scientific Organizing Committee, *Dwarf Galaxies: Keys to Galaxy Formation and Evolution*, JENAM 2010, September 06–10, 2010, Lisbon
- ★ Principal Organizer, *Heidelberg Mini-Workshop on Galaxy Clusters*, November 19, 2008
- ★ Organizing Committee, *Heidelberg Physics Graduate Days*,
 - April 06–09, 2010
 - October 05–09, 2009
 - March 23–27, 2009
 - September 29–October 02, 2008
 - March 31–April 04, 2008
- ★ Local Organizing Committee, IAU Colloquium 198: *Near-field cosmology with dwarf elliptical galaxies*, Les Diablerets, Switzerland, March 14–18, 2005

STUDENTS & THESIS SUPERVISION

Primary Thesis Advisor:***Ph.D. students:***

- ★ Stefan Lieder, 09/2010 – present, *Dwarf galaxies and star clusters in the group and cluster environment*, University of Heidelberg & ESO Chile
- ★ Isabel Franco Rico, 03/2009 – 02/2011, *A stellar population picture of galaxy harassment*, University of Heidelberg
- ★ Joachim Janz, 01/2009 – present, *The puzzling nature of dwarf-sized gas-poor disk galaxies*, University of Heidelberg & University of Oulu
- ★ K. S. Alexander Hansson, 09/2008 – present, *The dwarf galaxy populations in clusters of different evolutionary stages*, University of Heidelberg
- ★ Hagen T. Meyer, 04/2008 – present, *Identifying the progenitors of early-type dwarf galaxies*, University of Heidelberg
- ★ Sanjaya Paudel, 01/2008 – 06/2011, *The stellar populations of early-type dwarf galaxies and their nuclei*, University of Heidelberg

Master and Diploma students:

- ★ Philip Saur, 10/2011 – present *The evolutionary history of galaxy clusters in a model universe*, University of Heidelberg
- ★ Stefan Lieder, 07/2009 – 07/2010, *A deep view on Virgo cluster dwarf galaxies*, University of Heidelberg
- ★ Oliver Hielscher, 06/2008 – 06/2009, *Stellar populations of early-type dwarf galaxies – clues to their origin?*, University of Heidelberg
- ★ Joachim Janz, 03/2008 – 12/2008, *The family of elliptical galaxies*, University of Heidelberg
- ★ Mischa Vodička, 02/2006 – 08/2006, *The color magnitude relation of dwarf elliptical galaxies in the Virgo cluster*, University of Basel (with E. K. Grebel)

Bachelor students:

- ★ Thomas Beisitzer, 03/2010 – 07/2010, *Infall and gas stripping of star-forming galaxies in clusters*, University of Heidelberg

Co-Advisor and Related Functions:

- ★ Member of Ph.D. thesis advisory committee: A. Yildirim (with S. Jordan, 2011–present), V. Kalinova (with G. van de Ven, 2010–present), Y.-Y. Chang (with A. van der Wel & H.-W. Rix, 2010–present), M. Cisternas (with K. Jahnke, 2008–2011), S. Lianou (with E. K. Grebel, 2007–2010), D. Crnojevic (with E. K. Grebel, 2007–2010), University of Heidelberg
- ★ Co-Advisor of Diploma student J. Ludwig and referee for Diploma thesis (with E. K. Grebel), 06/2008 – 08/2009, University of Heidelberg
- ★ Referee for Diploma thesis of R. Haschke (with E. K. Grebel), 03/2009, University of Heidelberg
- ★ Advisor of summer students: G. Calistro (2010), V. Böhm (2010), S. Helmbold (2010), T. Gerner (2009), University of Heidelberg
- ★ Advisor for internship of high-school students: J. Götz (10/2010), R. Brunngräber (08/2008), University of Heidelberg
- ★ Expert assistant for reduction of near-infrared imaging data and galaxy morphology measurements (PI S. J. Kautsch, then Ph.D. student at the University of Basel), 12/2005 – 06/2006, University of Basel
- ★ Advisory person for Diploma students K. Glatt, T. Hascher, and K. Jordi, 02/2005 – 08/2005, University of Basel

TEACHING EXPERIENCE

Lectures and Courses:

- ★ *MKEP5: Observational Astronomy*
Summer term 2012, University of Heidelberg, with S. Wagner
- ★ *MVAstro2: Stellar Astronomy and Astrophysics*
Summer term 2010, University of Heidelberg, with S. Jordan
- ★ *From tiny galaxies to huge clusters*
Summer term 2010, University of Heidelberg, XXIV Physics Graduate Days
- ★ *Galaxy types and their evolution (short lecture)*
January 2010, HGSFP Winterschool, Obergurgl, Austria
- ★ *Dwarf galaxies*
Winter term 2009/2010, University of Heidelberg
- ★ *Astronomical CCD data: reduction and characteristics*
 - March 2009 (block), University of Heidelberg
 - Summer term 2008, University of Heidelberg
- ★ Substitute lecturer (several occasions), *Galactic and Extragalactic Astronomy* and *Observational Methods*, 2004–2009, Universities of Basel & Heidelberg

Labs and Exercises:

- ★ *Physics II exercise class*, Summer term 2011, University of Heidelberg
- ★ *Exercises to MVAstro2: Stellar Astronomy and Astrophysics*, Summer term 2010, University of Heidelberg, with S. Jordan
- ★ *Physics I exercise class*, Winter term 2008/2009, University of Heidelberg
- ★ *Exercises to Galactic and Extragalactic Astronomy*, Winter term 2007/2008, University of Heidelberg
- ★ *Astronomical lab course*, Winter term 2006/2007, University of Basel
- ★ *Exercises to Astrophysics & Cosmology*, Summer term 2006, University of Basel
- ★ *Astronomical lab course*, Winter term 2005/2006, University of Basel
- ★ Design of new computer experiment (*Galaxy Formation*) for the astronomical lab course, 10/2005, University of Basel
- ★ *Astronomical lab course*, Winter term 2004/2005, University of Basel
- ★ Teaching assistant, *Physik I für Erd-, Umwelt-, Agrar- und Forstwissenschaften*, Summer term 2004, ETH Zürich
- ★ Teaching assistant, *Physik I für Physiker und Mathematiker*, Winter term 2003/2004, ETH Zürich
- ★ Teaching assistant, *Astronomical lab course*, Winter term 2002/2003, University of Erlangen-Nürnberg

Seminars:

- ★ *MVSem: The physical processes shaping galaxies*, Winter term 2011/2012, University of Heidelberg
- ★ *IMPRS seminar*
 - Summer term 2010, University of Heidelberg, with other lecturers
 - Winter term 2009/2010, University of Heidelberg, with other lecturers
- ★ *Dwarf galaxies*, Winter term 2009/2010, University of Heidelberg
- ★ *Kepler's laws*, Summer term 2009, University of Heidelberg, with other lecturers
- ★ *Astronomy from space with Spitzer & GALEX*, Winter term 2008/2009, University of Heidelberg, with other lecturers
- ★ *Introduction to Astronomy & Astrophysics III*, Winter term 2008/2009, University of Heidelberg, with other lecturers

TALKS

Talks at International Conferences:

- ★ *The Importance of the Small for Understanding the Large: Dwarf Galaxies in Galaxy Clusters*, Biermann Award Lecture, AG Meeting 2011, Heidelberg, Germany, 2011
- ★ *The dwarf galaxy content of present-day clusters: semi-analytic models vs reality*, in 'Fornax, Virgo, Coma et al.', ESO Garching, Germany, 2011
- ★ *Exploring evolutionary links between nuclear star clusters and ultra-compact dwarf galaxies*, in 'Star Clusters and Stellar Evolution', AG Meeting 2010, Bonn, Germany, 2010
- ★ Invited Review: *Early-type dwarf galaxies*, in 'A Universe of Dwarf Galaxies', Lyon, France, 2010
- ★ *Early-type dwarf galaxies as tests of cosmological models*, in 'Recent advances in cosmology', AG Meeting 2009, Potsdam, Germany, 2009
- ★ *Can the majority of Virgo cluster early-type dwarfs be of tidal origin?*, in 'Tidal Dwarf Galaxies', Bonn/Bad Honnef, Germany, 2009
- ★ Review: *Early-type dwarf galaxies: a mixed bag with various origins*, in 'Matter Cycles of Galaxies in Clusters', JENAM 2008, Vienna, Austria, 2008
- ★ *On the stability of the Gini coefficient as a measure of galaxy structure*, in 'Deconvolving Galaxy Evolution from High-z Surveys', JENAM 2008, Vienna, Austria, 2008
- ★ *The many faces of early-type dwarfs*, in 'IAU Symposium 241: Stellar populations as building blocks of galaxies', La Palma, Spain, 2006
- ★ *The zoo of early-type dwarf galaxies*, Mini-workshop, Lund, Sweden, 2006
- ★ *On the possible disk nature of bright early-type dwarfs*, in 'Dwarf galaxies as astrophysical and cosmological probes', Ringberg Castle, Germany, 2006
- ★ *The colours of Virgo dEs as seen by SDSS*, in 'IAUC 198: Near-field cosmology with dwarf elliptical galaxies', Les Diablerets, Switzerland, 2005
- ★ *Subdwarf B stars from SPY – observation versus theory*, in '14th European Workshop on White Dwarfs', Kiel, Germany, 2004
- ★ *Spectroscopic analysis of sdB stars from SPY*, in 'Extreme Horizontal Branch Stars and Related Objects', Keele, UK, 2003

Seminars and Colloquia:

- ★ *On galaxy clusters in semi-analytic models and the nearby universe:*
 2011, University of Basel
 2011, University of Innsbruck
 2011, ZAH/ARI Heidelberg
 2011, National Astronomical Obs., Chinese Academy of Sciences, Beijing
 2011, KIAA, Peking University, Beijing
 2011, Yonsei University, Seoul
 2011, Korean Astronomy and Space Science Institute, Daejeon
 2011, University of Oulu
 2010, ZAH/ARI Heidelberg
- ★ *On UCDs and early-type dwarf galaxies in clusters:*
 2010, MPIA Heidelberg
- ★ *On early-type dwarf galaxies:*
 2009, University of Bonn
 2009, University of Oulu

- 2008, Institute of Astronomy, University of Vienna
- 2008, University of Zurich
- 2007, Heidelberg Astronomical Colloquium
- 2007, ZAH/ARI Heidelberg
- 2006, University College London
- 2006, MPIA Heidelberg
- 2005, University of Erlangen-Nürnberg
- ★ *On early-type giant and dwarf galaxies and their stellar content:*
- 2009, University of Erlangen-Nürnberg
- 2007, Graduate School of Fundamental Physics, Heidelberg
- ★ *On the structure of distant galaxies:*
- 2004, MPA Garching
- ★ *On extreme horizontal branch stars:*
- 2003, ETH Zürich
- 2003, MPE Garching

PUBLIC OUTREACH AND SCIENCE EDUCATION ACTIVITIES

- ★ Principal organizer and lecturer in astrophysics seminar week for teachers, Madonna di Campiglio, Italy, 2009 & 2011
- ★ Public talk at the Sternwarte Schriesheim, 2011
- ★ Lecturer in teacher's seminar, AG Meeting 2011, Heidelberg
- ★ Popular science article *Die Welt der Zwerggalaxien*, Sterne und Weltraum, 2010
- ★ Lecturer in astronomical youth camp ASL, Schnett, 2010
- ★ Lecturer in seminar *Die Sterne in den Unterricht holen* for teachers, Bad Wildbad, 2010
- ★ Public talk at the Freundeskreis Mannheimer Planetarium, 2009
- ★ Research project with high-school student: *Off-center nuclei in early-type dwarf galaxies?* (Facharbeit) 2009 – 2010
- ★ Astronomical research with school working groups (two projects), 2009
- ★ Talk and workshop for teachers, Regionale Lehrerfortbildung der mittelfränkischen Realschulen, Nürnberg, 2009
- ★ Public talk and seminar for teachers at the *Astronomia* exhibition Ravensburg, 2009
- ★ Talk and workshop for teachers at the University of Erlangen-Nürnberg, 2009
- ★ Expert astronomer at the *Astronomische Woche* in Madonna di Campiglio, Italy, 2008
- ★ Two public talks at the *Nacht der Wissenschaft* in Heidelberg, 2007
- ★ Open house day of the museum *Papiermühle*, Basel, 2005
- ★ Assistant for the preparation of *Nacht der Physik & Physik für Primarschulen*, ETH Zürich, 2004
- ★ Public tours with observations at the Astronomical Institutes Basel and Bamberg 2002 – 2006
- ★ Public astronomy courses (Volkshochschule Erlangen, Eckental, and Bamberg) 2000 – 2003
- ★ Small play about gamma-ray bursts at the Albert-Schweitzer-Gymnasium Erlangen, 1998
- ★ Public talk on black holes at the Regiomontanus-Sternwarte Nürnberg, 1996