

Astronomy CV for Kieran Leschinski

The online version can be found here: https://astronomyk.github.io/cv/astro_cv.html

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Publications

Only first author publication are listed here. For a list of co-author publications, please see [this link to ADS](#), or use the ADS search term: `author:"^Leschinski, K."`

Refereed papers

- Leschinski and Alves, 2020, A&A
 - [The Future of IMF studies with the ELT and MICADO I: The local Universe as a resolved IMF laboratory](#)
- Leschinski and Gendron, 2020, JOSS
 - [AnisoCADO: a python package for analytically generating adaptive optics point spread functions for the Extremely Large Telescope](#)
- Leschinski et al., 2016, SPIE
 - [SimCADO - an instrument data simulator package for MICADO at the E-ELT](#)

Conference proceedings

- 2015 Oct - ADASS Sydney
 - [SimCADO - An end-to-end instrument data simulator for MICADO on the E-ELT](#)
- 2016 Oct - ADASS, Trieste
 - [SimCADO - a python package for simulating detector output for MICADO at the E-ELT](#)
- 2018 Aug - IAU-GA, Vienna
 - [The Initial Mass Function in the ELT era](#)

Consortium related documents

- ELT-TRE-MCD-56306-0056: MICADO Filter Wing Transmission Levels
 - Description: MICADO Phase B Technical note
 - Authors: Leschinski
 - Year: 2017

- ELT-ICD-MCD-56306-0050: SimCADO: the Data Simulator for MICADO
 - Description: MICADO PDR Documentation
 - Authors: Leschinski and Czoske
 - Year: 2018

Thesis works

- Doctoral Thesis (2018): [Simulating MICADO: the future of near infrared astronomy](#)
 - Supervisor: Joao Alves
 - Alma matter: University of Vienna
- Master Thesis (2014): [A tale of two molecules: revisiting the CO-Av relationship in the L1495-B213 molecular cloud](#)
 - Supervisor: Alvaro Hacar
 - Alma matter: University of Vienna

Astronomy software projects

Below is the list of software projects (python packages) for which I am the main (or sole) designer and developer:

- SimCADO
 - The instrument data simulator for MICADO at the ELT
 - [Documentation](#)
 - [Code base](#)
- ScopeSim
 - A modular customisable multi-purpose astronomical instrument data simulator
 - [Documentation](#)
 - [Code base](#)
- ScopeSim_templates
 - A helper package from ScopeSim, containing function for generating on-sky source object in the correct format
 - [Documentation](#)
 - [Code base](#)
- IRDB (Instrument reference database)
 - The reference database containing all relevant information and files for ScopeSim to accurately model the full optical train for an observatory + telescope + instrument + detector system
 - [Code base](#)
- AnisoCADO
 - Generates on/off-axis SCAO PSFs for MICADO at the ELT
 - Based on a set of functions written by Eric Gendron
 - [Documentation](#)
 - [Code base](#)
- Pyckles
 - Quick pythonic access to the `Pickles (1998)` stellar spectra. The package is also general enough to include other libraries
 - [Documentation](#)
 - [Code base](#)

- SkyCalc_ipy
 - A wrapper for the `SkyCalc_cli` tool to allow use within an ipython framework
 - [Documentation](#)
 - [Code base](#)

Talks and Presentations

Conferences presentations

2015

- Oct - Erice
 - [International PhD School "F. Lucchin": Science and Technology with E-ELT](#)
 - [Lightning talk: "Observing" star formation over a Hubble time with MICADO, the E-ELTs first light NIR imager](#)
- Oct - ADASS XXV, Sydney
 - Lightning talk: SimCADO

2016

- April - Garching
 - [ESO Instrument Simulator workshop](#)
 - [Presentation](#)

2017

- February - Vienna
 - 2 day SimCADO Workshop - organised by me
 - 15 participants from MICADO science team
- May - Linz
 - A* PSF Meeting - Mathematicians meet Astronomers
- June - Prague
 - [EWASS ELT session - Presentation on Simcado and IMF variations - 15 min talk](#)
- August - Lanzhou, China
 - Shedding Light on the Dark Universe with Extremely Large Telescopes - 25 min talk
- September - Beijing
 - Stellar Populations and the Distance Scale - 20 min talk

2018

- April - Garching
 - MICADO Science team Meeting - 30 min presentation
- April - Groningen
 - Astrometry of resolved stellar population - 20 min presentation
- May - Vienna
 - PhD Defence - 45 min talk + 45 min questions
- June - Garching
 - ESO fellows symposium, invited talk - 30 min on SimCADO

- August - Vienna
 - [IAU General Assembly XXX](#) - 2x 15 min talks
 - Talk 1 - [Simulating imagery of the near and distant universe with MICADO at the ELT](#)
 - Talk 2 - [The Initial Mass Function in the ELT era](#)

2019

- March - Remote
 - MAORY Science team workshop - 15 min presentation
- April - Garching
 - ESO Software group meeting - meetings + hack-day
- June - Groningen
 - Kaypteyn Institute - 30 mins Lunch talk
- September - Crete
 - [Star Formation Workshop - 5 mins Lightning talk](#)

MICADO consortium meetings

2015

- February - Garching MICADO Kick-Off
- May - Leiden CM01
- Oct - Vienna MC02

2016

- January - Garching
 - MICADO Science team - Presentation of SimCADO v0.1 and Q and A with Science Team
- March - Garching CM03
- July - Dwingeloo CM04
- November - Garching CM05

2017

- February - Vienna
 - Simcado Workshop
- April - Garching CM07
 - MICADO SRR meeting
- October - Leiden
 - Science Team meeting

2018

- March - Garching CM09
- April - Groningen
 - Science Team meeting
- June - Groningen CM10

2019

- March - Garching CM12
- July - Innsbruck CM13
- November - Garching CM14

2020

- March - Online CM15
- June - Online CM16

University talks

- 2015 March - Phd Seminar
- 2015 June - E-ELT Seminar
- 2016 Jan - FÖP
- 2017 Jan - Progress Report
- 2017 May - 2 hour E-ELT seminar
- 2018 May - PhD defence

Teaching

- 2014 May->June
 - Master Instrumentation Tutorial (4x 3hr)
- 2016 April->June
 - Bachelor Spectroscopy Tutorial (8x 5hr)
- 2017 April->June
 - Bachelor Spectroscopy Tutorial (8x 5hr)
- 2019 March->July
 - Bachelor (Physics) Introduction to Experimental Methods (14x 2.5hr)
- 2020 March->July
 - Bachelor (Physics) Introduction to Experimental Methods (14x 2.5hr)

Posters

- 2015 April - Oxford
 - The MICADO IDS - An Instrument Data Simulator for the E-ELT first-light instrument MICADO
- 2015 June - Garching - EIRO forum
 - SimCADO - An Instrument Data Simulator for the E-ELT first-light instrument MICADO
- 2015 Oct - Sydney - ADASS
 - Updated: SimCADO - An Instrument Data Simulator for the E-ELT first-light instrument MICADO
- 2016 April - Vienna - Lange Nacht der Forschung
 - Das E-ELT: Europas neues Riesenteleskop
 - MICADO: Die Nahinfrarotweitwinkelkamera des europäischen Riesenteleskops
- 2016 June - SPIE, Edinburgh
 - SimCADO: A python package to simulate images for the E-ELT's NIR camera: MICADO
- 2016 Oct - ADASS, Trieste
 - SimCADO - a python package for simulating detector output for MICADO at the E-ELT

Conference Attendance

2015

- Apr - Oxford

- Wetton Workshop - Realising the Astronomy of the Future II - Simulating the Universe
 - <http://astro-conf.physics.ox.ac.uk/wetton15/programme.html>
- June - Garching
 - EIRO Forum summer school
 - Best poster award!
 - <https://indico.cern.ch/event/368852/>
- Oct - Erice
 - STEEL summer school
 - http://www.eso.org/sci/meetings/2015/EELT_EriceSchool2015.html
- Oct - Sydney
 - ADASS 25
 - <http://www.caastro.org/event/2015-adass>
- Nov - Sydney
 - dot Astronomy 7
 - <http://dotastronomy.com/events/seven/>

2016

- April - Garching
 - ESO Instrument Simulator workshop
 - <http://www.eso.org/sci/meetings/2016/simu2016.html>
- May - Linz
 - A* All-day PSF reconstruction meeting
- June - Edinburgh
 - SPIE - Astronomical Telescopes and Instrumentation
 - <http://spie.org/about-spie/press-room/spie-astronomical-telescopes--instrumentation-2016-news-and-photos>
- October - Trieste
 - ADASS 26
 - <http://www.adass2016.inaf.it/>

2017

- June - Prag
 - EWASS - European Week of Astronomy and Space Science - SS18
 - <http://eas.unige.ch/EWASS2017/session.jsp?id=SS18>
- July - Linz
 - MICADO PSF-R and Spectroscopy Meeting
- August - Lanzhou, China
 - Shedding Light on the Dark Universe with Extremely Large Telescopes - 25 min talk
 - <http://darkuniverse2017.csp.escience.cn/dct/page/65580>
 - <https://conferences.pa.ucla.edu/dark-universe/index.html>
- September - Beijing
 - Stellar Populations and the Distance Scale - 20 min talk
 - <http://kiaa.pku.edu.cn/conference/stellar-populations-and-distance-scale-conference-honour-jeremy-mould>

2018

- August - Vienna
 - IAU General Assembly
 - <https://astronomy2018.univie.ac.at/>

2019

- September - Crete
 - Crete III: Through dark lanes to new stars
 - <https://crete3.org/>

Outreach activities

International Astronomical Youth Camp (IAYC), run by the International Workshop for Astronomy (IWA)

- 2012 - 2016: Group Leader
- 2014, 2015: President of IWA
- 2013, 2016: Vice President of IWA

2015

- March - Vienna
 - Sonnenfinsternis, Urania
- Oct - Vienna
 - Lange Nacht der Museen, Urania

2016

- Apr - Vienna
 - Lange Nacht der Forschung, Sternwarte
- May - Vienna
 - Mercury Transit, Urania
- Nov - Vienna
 - WAA - Wiener Astronomische Arbeitsgruppe General Versammlung

2017

- 2017 July - Alpbach
 - Alpbach Summer school tutor

2018

- May - Vienna Planetarium
 - Lecture on Die Zukunft der Astronomie - Riesen-Teleskope unter der Lupe

2019

- May - Vienna Planetarium
 - Lecture on "The known unknowns in modern astronomy"
- June - Theresianum High School
 - Physics class - "A morning with an Astrophysicst"
- July - Vienna University Observatory
 - 01 Vollmondnacht public talks