

CURRICULUM VITAE

LAST UPDATE: 19 SEP 2022

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CURRENT POSITION

ASKAP Survey Science Team, Australia

FLASH Project Scientist (ASKAP-FLASH; First Large Absorption Survey in H I) Oct 2021 – Present

The University of Sydney, Australia

ASTRO 3D Postdoctoral Research Associate Sep 2019 – Present

EDUCATION

Yonsei University, Korea

Ph.D. in Astronomy Aug 2019

- Thesis: *The Impact of Large-scale Environments on Galaxy Evolution: Insights from the Neutral Hydrogen Gas in Galaxies Inside and Outside of the Virgo Cluster*

- Supervisor: Prof. Aeree Chung (Yonsei)

M.S. in Astronomy Feb 2013

- Thesis: *Diagnostics to Probe Environmental Effects on Late-type Galaxies in the Virgo Cluster*

- Supervisor: Prof. Aeree Chung (Yonsei)

B.S. in Astronomy Feb 2011

- Double major: Physics

RESEARCH INTERESTS

Neutral atomic hydrogen (H I) survey — H I absorption and emission lines — Radio data processing —
Data quality assessment — Environmentally-driven galaxy evolution in large-scale filaments/groups

RESEARCH EXPERIENCE AND ADVANCED EDUCATION

Project Scientist, ASKAP-FLASH Project 2021 – Present

Postdoctoral researcher, The University of Sydney 2019 – Present

- Supervisor: Prof. Elaine Sadler (USyd/CSIRO)

- FLASH Pilot Survey Phase 1 data validation, H I absorption line analysis, Radio source imaging

Research assistant, Yonsei University 2011 – 2013 (Master) / 2013 – 2019 (Ph.D.)

- Supervisor: Prof. Aeree Chung (Yonsei)

Visiting researcher at ICRAR/UWA 2016 – 2017 (7 months)

- International Centre for Radio Astronomy Research/University of Western Australia, Australia

- Australian Government Endeavour Research Fellowship, Host: Dr. O. Ivy Wong (ICRAR/UWA)

NRAO 14th Synthesis Imaging School 2014

- NRAO and New Mexico Institute of Mining and Technology, USA

GRANTS, AWARDS, AND SCHOLARSHIPS

Research Travel Grant - Korea Center for Woman in Science/Engineer/Technology (WISET), 2018

Award for Student Poster Competition, "Yonsei Astro Poster Jamboree" - Yonsei University, 2017

Endeavour Research Fellowship - Australian Government, 2016

BK21 Plus Scholarship - National Research Foundation of Korea, 2013 – 2016

BK21 Scholarship - National Research Foundation of Korea, 2011 – 2012

Teaching/Research Assistantship - Yonsei University, 2011 – 2012

Honors - Yonsei University, 2010

Truth Scholarship (University Designated) - Yonsei University, 2009 – 2010

Yonsei Internal/External Scholarship - Yonsei University, 2009

TEACHING EXPERIENCE

Unit coordinator at the University of Sydney

- Data Science in Astronomy: Algorithms (OLET1618; Semester 1, Semester 2 2020)

Teaching Assistant at Yonsei University

- Astrophysics II (Fall 2012), Radio astronomy (Spring 2012), Understanding of Space (Fall/Spring 2011)

OBSERVING EXPERIENCE AND SUCCESSFUL PROPOSALS

Korean VLBI Network (90 hours, PI of 2022A_0286)

Australia Telescope Compact Array (11.5 hours, PI of CX473 + Duty astronomer)

Westerbork Synthesis Radio Telescope, 72-m configuration (96 hours, PI of R14A011)

Karl G. Jansky Very Large Array, D-configuration (7.5 hours, PI of 14A-304)

Giant Metrewave Radio Telescope (20 hours, PI of 25_034)

Co-I projects: e-MERLIN (CY12212), JVLA (21A-310), MeerKAT (MKT-20135), GMRT (40_096, 40_092, 36_002), ATCA (C3392), NRO 45-m (CG121032, CG112025)

PUBLICATIONS

Link to My ADS Library - <https://ui.adsabs.harvard.edu/public-libraries/5yMcyHDUTbuXMFdYYIep-g>

PRESENTATIONS (SELECTED, LAST 3 YEARS)

2022 IAU General Assembly 2022 Division J (in-person), Symposium 373 (e-talk), South Korea, Aug 2022

2022 ASTRO 3D Science Meeting, Australia, June 2022 (in-person)

SIFA Astro Morning Tea talk, University of Sydney, Australia, Mar 2022 (remote)

2021 ASTRO 3D Science Meeting, Australia, Sep 2021 (remote)

2021 Astronomical Society of Australia - Annual Science Meeting, Australia, July 2021 (remote)

SIFA Astro Morning Tea talk, University of Sydney, Australia, June 2021 (remote)

East-Asia SKA workshop, Japan, May 2021 (remote)

Co-learnium, CSIRO, Australia, Jan 2021 (remote)

Meeting of the Korean Astronomical Society, Korea, Oct 2020 (remote, poster)

236th Meeting of the American Astronomical Society, USA, June 2020 (remote)

SIFA Astro Morning Tea talk, University of Sydney, Australia, July 2020 (remote)

SERVICE, OUTREACH, AND MENTORING

Session chair - Session chair for "IAU General Assembly Division J Galaxies and Cosmology", 2022

Local organizer - Co-host of weekly SIFA Morning Tea, 2022

Science organizer & Session chair - SOC and Session chair for "2021 ASTRO 3D Science Meeting", 2021

Local organizer - USyd node coordinator for ASTRO 3D NSW Nodes Monthly Meeting, 2021

Mentoring for juniors - Korea Center for Woman in Science/Engineer/Technology (WISET), 2018 – 2019

Global mentoring for career development - WISET and General Electrics, 2018

Local organizer - LOC for "SKA in Seoul on H I Science" conference, 2016

Volunteering (translation/editing) - Africa-Asia Destitute Relief Foundation (ADRF), 2015

BK21 Plus Assistant (department assistant) - Yonsei University, 2014

Public outreach - Yonsei astronomy public outreach club ("Byul-a-rum"), 2008 – 2009

Volunteering (teaching) - Chungam community child center, 2007 – 2008

COMPUTING SKILLS

Languages: Python, HTML, Fortran, LaTeX, IDL (basic), Matlab (basic)

Astronomical data processing tools: CASA, MIRIAD, AIPS, Karma, GIPSY, SoFiA, IRAF, DisPerSE, Fv

Graphics: Matplotlib, SuperMongo, Adobe Illustrator

COLLABORATIONS/MEMBERSHIPS

ASKAP-FLASH (First Large Absorption Survey in H I), VIVA (VLA Imaging of Virgo in Atomic gas), BUDHIES (Blind Ultra Deep H I Environmental Survey), VERTICO (Virgo Environment Traced In CO), ASTRO 3D (The ARC Centre of Excellence for All Sky Astrophysics in 3 Dimensions), IAU (International Astronomical Union), ASA (Astronomical Society of Australia), KAS (Korean Astronomy Society)