

CURRICULUM VITAE

LAST UPDATE: 28 FEB 2021

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CURRENT POSITION

The University of Sydney, Australia

ASTRO-3D Postdoctoral Research Associate

Sep 2019 – Present

- Project: HI absorption-line survey toward radio continuum sources (ASKAP-FLASH survey team)

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 — Pre-processing of galaxies in large-scale filaments/groups

RESEARCH EXPERIENCE AND ADVANCED EDUCATION

Postdoctoral researcher, The University of Sydney

2019 – Present

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

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

- Supported by 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)

Volunteer teacher

- Study guidance for middle school students at Chungam community child center, 2007 – 2008

OBSERVING EXPERIENCE AND SUCCESSFUL PROPOSALS

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)

Nobeyama 45-m Radio Telescope (40 hours, Co-I of CG121032)

Nobeyama 45-m Radio Telescope (40 hours, Assist, CG112025)

PRESENTATIONS (SELECTED)

Oral Presentations

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

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

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

233rd Meeting of the American Astronomical Society (dissertation talk), Seattle, USA, Jan 2019

KASI workshop - Environmental Effects on Galaxies in Groups and Clusters, KASI, Korea, Sep 2018

2018 Radio Telescope User's Meeting, KASI, Korea, Aug 2018

Galaxies A to Z workshop, Naksan, Korea, June 2018

PHISCC: SKA Pathfinders H I Science Coordination Committee meeting, Pingtang, China, June 2018

Yonsei-Oxford Galaxy Evolution Symposium, Yonsei, Korea, May 2018

From Field to Clusters: H I as a tracer of galaxy evolution, Swinburne University, Australia, Mar 2017

2016 Bolton and Student Symposium, CSIRO, Australia, Nov 2016 (short talk)

SKA in Seoul: Asia-Pacific Regional Workshop on H I Science 2015, Seoul, Korea, Nov 2015

International Workshop on Galaxy Clusters and Galaxy Formation, Yonsei, Korea, Oct 2015

Meeting of the Korean Astronomical Society, Gwangju, Korea, Oct 2012

Virgo Collaboration Workshop, Bennington University, USA, Aug 2012

Galaxies Lunch, Columbia University, USA, Aug 2012

Poster Presentations

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

KIAA Forum on Star formation, Kavli-Peking University, China, June 2018

The 1st Yonsei Astro Poster Jamboree, Yonsei University, Nov 2017

Meeting of the Korean Astronomical Society, Korea, Apr 2016 (Busan), Apr 2015 (SNU), Oct 2011 (Jeju)

12th Asia-Pacific Regional IAU Meeting, DCC, Korea, Aug 2014

2014 APNN & MAPWiST, Ehwa University, Korea, Aug 2014

SERVICE, OUTREACH, AND MENTORING

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

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

Local organizer - LOC for the international conference, “SKA in Seoul on H I Science”, 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, Fortran, LaTeX, HTML, 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), Korean Astronomy Society (KAS)