

Curriculum Vitae of Dongsu Ryu

Affiliation

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Research interests

- Shock waves and turbulence in clusters of galaxies
- Origin and evolution of magnetic fields and cosmic rays in the universe
- Plasma astrophysical phenomena in the large-scale structure of the universe

Selected Papers

- Effects of Multiscale Plasma Waves on Electron Preacceleration at Weak Quasi-perpendicular Intracluster Shocks, Ha, J.-H., Kim, S., Ryu, D., & Kang, H. 2021, The Astrophysical Journal, 915, 18 (15pp)
- Filaments of Galaxies as a Clue to the Origin of Ultra-High-Energy Cosmic Rays, Kim, J., Ryu, D., Kang, H., Kim, S., & Rey, S.-C. 2019, Science Advances, 5, eaau8227
- Properties of Merger Shocks in Merging Galaxy Clusters, Ha, J.-H., Ryu, D., & Kang, H. 2018, The Astrophysical Journal, 857, 26 (11pp)
- Turbulence and Magnetic Fields in the Large Scale Structure of the Universe, Ryu, D., Kang, H., Cho, J. & Das, S. 2008, Science, 320, 909 - 912
- Cosmological Shock Waves and Their Role in the Large Scale Structure of the Universe, Ryu, D., Kang, H., Hallman, E. & Jones, T. W. 2003, The Astrophysical Journal, 593, 599 - 610
- Cosmological Hydrodynamic Code Based on the Total Variation Diminishing Scheme, Ryu, D., Ostriker, J. P., Kang, H. & Cen R. 1993, The Astrophysical Journal, 414, 1 - 19

Education

Ph.D. (Astronomy) University of Texas at Austin, USA, 1988
M.A. (Astronomy) University of Texas at Austin, USA, 1985
B.S. (Astronomy) Seoul National University, Korea, 1983

Employment and Academic Positions

2023 - present Endowed Chair Professor, Department of Physics, UNIST, Korea
2014 - present Professor, Department of Physics, UNIST, Korea
2016 - 2022 Director of Center for High Energy Astrophysics (CHEA), UNIST, Korea
2020 - 2022 Dean of College of Natural Science, UNIST, Korea
2017 - 2018 Dean of School of Natural Science, UNIST, Korea
2016 - 2017 Adjunct Researcher & Director of Center for Theoretical Astronomy, Korea Astronomy and Space Science Institute (KASI), Korea
2013 - 2014 PI of BK21 Plus, Department of Astronomy and Space Science, Chungnam National University, Korea
2007 - 2010 PI of Global Partnership Program, Department of Astronomy and Space Science, Chungnam National University, Korea
1992 - 2014 Assistant, Associate, Full Professors, Department of Astronomy and Space Science, Chungnam National University, Korea
2002 - 2003 Visiting Professor, Department of Astronomy, University of Minnesota, USA
1996 - 1997 Visiting Professor, Department of Astronomy, University of Washington, USA
1990 - 1992 Postdoctoral Researcher, Department of Astrophysical Sciences, Princeton University, USA
1988 - 1990 Postdoctoral Researcher, Astrophysics Group, Fermi National Accelerator Laboratory (Fermilab), USA

Other Positions

2021 - present Member of The Korean Academy of Science and Technology
2020 - 2021 President of Korean Astronomical Society
2016 - 2017 Vice President of Korean Astronomical Society
2014 - 2017 Vice Chair of Division of Plasma Physics, Association of Asia Pacific Physical Society
2012 - 2019 Member of Executive Committee of High Energy Density Laboratory Astrophysics
2012 - 2015 Chair of Program Committee, Korean Astronomical Society
2007 - 2017 Korea-Research-Foundation Endorsed Scholar
1995 - 1996 Seoam Fellow, Korea