

## CONTACT

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## EXPERTISE/ INTERESTS

Star Formation and Quenching, Super Massive Black Holes, Evolution of Galaxies  
Structure of the Interstellar Medium: Magnetic Fields, Gas, and Dust  
Multi-wavelength Observations, Interferometry, Polarization

## ACADEMIC EDUCATION

<b>University of Bonn/Max-Planck-Institut für Radioastronomie</b> Ph.D. in Astrophysics Title: “Thermal and Non-thermal Emission from the Nearby Galaxy M33” Advisers: Rainer Beck & Marita Krause, Co-adviser: Endrik Krügel	Jan 2005-Jan 2008
<b>Institute for Advanced Studies in Basic Sciences-IASBS</b> MSc in Astrophysics Title: ‘A Phenomenological Study of Evolution of Galaxies and QSOs’ Adviser: Sadollah Nasiri Gheydari	Sept 1997- Jan 2000
<b>University of Tehran</b> BSc in Solid-State Physics	Sept 1993- Jun 1997

## APPOINTMENTS

Co-chair, SKA Science Working Group Extragalactic Continuum Square Kilometer Observatory (SKAO)	since Jan 2024
Head, School of Astronomy, Institute for Research in Fundamental Sciences-IPM	since Jan 2004
Visiting Scientist, Max-Planck-Institut für Radioastronomie (MPIfR) Bonn, Germany	July/August 2023
Associate Professor Institute for Research in Fundamental Sciences, Tehran	since Sep 2018
Genéricos Research Fellow Instituto de Astrofísica de Canarias (IAC), Tenerife, Spain	Apr 2015- Sep 2018
Visitor/Observer, National Radio Astronomy Observatory Socorro, USA	Oct 2014- Nov 2014

DFG Postdoc, Max-Planck-Institut für Astronomie (MPIA) Heidelberg, Germany	Mar 2011- Oct 2014
Postdoc Scholar, MPIfR Bonn, Germany	Jan 2008- Mar 2011
Ph.D. Scholar, MPIfR Bonn, Germany	Jan 2005- Jan 2008
Visiting Scientist, MPIfR, Bonn, Germany	Sep 2004- Jan 2005
Faculty Member, Damghan University of Basic Sciences, Damghan, Iran	2003-2004
Lecturer, Shahrood University of Technology, Shahrood, Iran	2003
Physics Teacher, Reza Pre-University College, Tehran, Iran	2000- 2002

## **DISTINCTIONS**

IAU/ Gordon and Betty Moore Grant	2023
Distinguished Researcher (MSRT)	2022
Genéricos Fellowship, IAC	2015-2018
German Research Foundation Award	2011-2014
Max-Planck-Institute Fellowship	2008-2010
International Max-Planck Research School (IMPRS) Ph.D. Scholarship	2005-2010

## **LARGE COLLABORATIONS & MEMBERSHIPS**

International Astronomical Union (IAU)	since 2023
MeerKAT Key Science Project 'MIGHTEE'	since 2020
NIKA2 Key Science Project 'IMEGIN'	since 2019
SKA Science Working Group 'Cosmic Magnetism'	since 2018
SKA Science Working Group 'Continuum'	since 2016
Herschel Key Science Project 'KINGFISH'	since 2012
Herschel Key Science Project 'HerM33es'	since 2009
LOFAR Key Science Project, 'MAGNETISM'	since 2009
Member of German Long Wavelength Consortium (GLOW)	2013-2015
Member of German Astronomical Society	2012-2015
Member of German Network of Female Astronomers (AFN)	2011-2015
Member of Astronomical Society of Iran	since 2018

## **EXTERNALLY FUNDED/GRANTED PROJECTS**

IAU/IHOW Radio Astronomy Capacity Building Workshop 2023, 35000E	2023
Key Insights in Nearby Galaxies: Radio Continuum Survey of the KINGFISH Galaxies, funded by German Research Foundation for <u>my individual research</u> ~ 90,000E	2011-2014

The structure and evolution of galaxies and their central regions, 2017-2021  
 funded by Spanish Ministry of Economy and Competitiveness research grant  
 AYA2016-76219-P ~150,000€ (PI: J. H. Knapen)

## **OBSERVING GRANTS**

### **Granted 325 h observing time as Principal Investigator (PI)**

25 h	Magnetic Field Structure in the Andromeda Galaxy, <b>Karl Jansky VLA</b>	2023/2024
30 h	A Deep H $\beta$ Survey of Nearby Galaxies, 4-m <b>William Herschel Telescope</b>	2016/2017
45 h	Low-Frequency Properties of the ISM in M33, <b>Giant Meter Radio Telescope</b>	2012/2013
45 h	Uncovering the Magnetized ISM in M33, <b>Karl Jansky VLA</b>	2011/2012
30 h	Cold Dust in Barred Galaxies, <b>APEX telescope</b>	2008/2010
25 h	HERA 13CO(2-1) Observations of the Antennae Galaxy, <b>IRAM 30-m telescope</b>	2009/2010
25 h	The Radio–FIR Correlation in M33, <b>Very Large Array (VLA)</b>	2005/2006
100 h	Thermal and Nonthermal Emission from M33, <b>Effelsberg 100-m telescope</b>	2005/2006

### **Granted 680 h observing time as Co-Investigator (Co-I)**

200h	<b>NIKA2/IRAM</b> Observations of Nearby Galaxies (IMEGIN), PI: S. Madden	2019-2021
2 h	<b>ALMA</b> Observations of Dust Polarization in M83, PI: R. Paladino	2016/2017
80 h	<b>VLA</b> Observations of Star Formation in M51, PI: E. Schinnerer	2013/2014
60 h	A Complete and Deep <b>JVLA</b> Continuum Survey of M31, PI: A. Leroy	2011/2012
18 h	Radio-IR Relation on Sub-kpc Scales with <b>JVLA</b> , PI: E. Schinnerer	2011/2013
100 h	A Complete and Deep HERA Map of M33, <b>IRAM 30-m</b> , PI: J. Braine	2009/2010
220 h	Herschel M33 Extended Survey (HerM33es), <b>Herschel Space Observatory</b> , PI: C.Kramer	2010/2012

## **STUDENT PROJECTS ADVISED/ADVISING**

**“Thermal and Non-thermal Processes in the Central Molecular Zone and Galactic Center”** since 2023  
 Farideh Mazoochi’s PhD thesis Project,  
 IPM

**“Magnetic Field Structure in the Andromeda Galaxy”** since 2023  
 Amir Yarahmadi’s PhD thesis Project,  
 IPM

**“Uncovering Physical Properties of The ISM at Low Radio Frequencies in M33”** since 2021  
 Monireh Khatami’s PhD thesis Project,  
 IPM & Alzahra University

**“Investigating Millimeter Emission in Nearby Galaxies with NIKA2”** science 2020  
 Golshan Ejlali’s PhD thesis Project,  
 IPM

<b>“Low-Frequency Radio Emission Properties of IC342”</b> Mohammad R. Nasirzadeh’s Master thesis project, IPM & K.N. Tousi University	2019-2021
<b>“Role of Thermal and Non-thermal Processes in the ISM of Magellanic Clouds”</b> Graduate Student Hamid Hassani's Master thesis Project, IPM & Shahid Beheshti University	2019-2021
<b>“A Detailed Study of Radio-FIR Correlation in Dwarf Irregular Galaxies”</b> Graduate Student Mohammad J. Shahhoseini’s Master thesis Project IPM & Shahid Beheshti University	2019-2021
<b>“Interstellar Medium and Star Formation in NGC1316”</b> Graduate Student Haleh Mesgari’s Master thesis Project IPM & Shahid Beheshti University	2019-2020
<b>“Mapping Extinction in Nearby Galaxies with ACAM/WHT Observations”</b> Graduate Student Eduardo Alberto Mantero Castaneda's Master thesis Project University of La Laguna , Spain	2017-2018
<b>“The ISM Energy Balance in the Surroundings of Super-massive Black Holes ”</b> Graduate Student Paloma Minguez's Master thesis Project, University of La Laguna	2015-2016
<b>“Pattern Recognition and Image Analysis in Astronomy: A Multi-Scale Analysis of Star Formation Laws”</b> Graduate Student Marta Reina-Campos' Summer Project, Instituto de Astrofísica de Canarias	2015

## CONFERENCES ORGANIZED

- IAU/IHOW Radio Astronomy 2023, 4-15 Sep 2023, Erciyes University, Turkey (Chair)
- Radio Astronomy Workshop, 24-28 April 2021, IPM, Tehran, Iran (Chair)
- Baryons in Galaxies and Beyond, 17-19 Feb 2019, IPM, Tehran, Iran, (SOC)
- Physics Opportunities with a New Universe’s View: The SKA Radio Telescope, 6-7 Nov 2017, Valencia, Spain, (SOC)
- Measuring Star formation in the Radio, Millimeter, and Sub-millimeter, 24-26 Jul 2017, Manchester, UK, (SOC)
- The Physics behind the Radio-IR Correlation at European Week of Astronomy, 22-26 Jun 2015, Tenerife Spain, (SOC)
- Max-Planck-Institut für Astronomie Retreat 2013 (Cosmology-Galaxy Department), 22-24 Oct 2013, (SOC & LOC)

## PEER REVIEW/COMMITTEE PANELS

European Research Council Grant peer-reviewer (REPRISE)	2020/2021
Research Council, School of Nano, IPM	2020-2022
Research Council, School of Astronomy, IPM	since 2018
European Southern Observatory proposal committee	2018
Polish National Science Centre (NCN) reviewer	2018
The SUNDIAL PhD Selection Committee at IAC, Spain	2017
Giant Meter Wave Telescope proposal reviewer	2012

Journal Referee, MNRAS, A&A, and AAS Journals

since 2008

## SELECTED PRESENTATIONS

- Review Talk** at IAU/IHOW Radio Astronomy 2023, Kayseri, Turkey Sep 2023  
Contributed talk at virtual meeting: ‘A Precursor View of the SKA Sky’ March 2021  
Manchester, UK
- Invited Session** at the SKA Key Science workshop, Manchester, UK April 2019  
Contributed Talk at ‘The Laws of Star Formation: From Cosmic Dawn to the Present’ Cambridge University, UK July 2018
- Invited Plenary Talk** at the Spanish SKA Meeting, Valencia, Spain Nov 2017  
Contributed Talk at the Measuring Star Formation in the Radio, Millimeter, and Submillimeter Conference, Manchester, UK July 2017
- Invited Talk** at the *Nearby Galaxies at Low Frequencies* Meeting, Onsala, Sweden May/June 2017
- Contributed Talk at Canadian Astronomical Society (CASCA) meeting entitled “The Radio Spectral Energy Distribution and Star Formation Calibration in Galaxies”, Alberta, Canada May/June 2017
- Contributed Talk at EWASS 2017 entitled *Star Formation & Feedback in Nearby Galaxies*, Prague, Czech Republic Jun 2017
- Contributed Talk at The Broad Impact of Low-Frequency Observing conference entitled *Cloud-Scale GMRT Survey of M33*, Bologna, Italy Jun 2017
- Invited Talk** at the DFG Research Unit 1254 Workshop, entitled *The KINGFISHER Radio Survey with 100-m*, Berlin, Germany Sept 2016
- Invited Review Talk** at European Week of Astronomy-EWASS entitled *The Physics behind The Radio-IR Correlation*, Tenerife, Spain Jun 2015
- Invited Colloquium** entitled “Impact of Star Formation on Dusty and Magnetized ISM in Galaxies”, Tenerife, Spain Jun 2015
- Invited Talk** at International Conference ‘Galaxies Inside and Out’, IPM, Tehran Jan 2015
- Invited Colloquium** entitled “Impact of Star Formation on Dusty & Magnetized ISM”, Universität zu Köln, Köln, Germany May 2014
- Invited Colloquium** entitled “Resolved Radio-FIR Correlation as a Probe to Star Formation/ISM Interplay”, ARI, Heidelberg Jan 2014
- Invited Colloquium** entitled “Magnetized ISM in Nearby Galaxies”, HITS, Heidelberg, Germany Dec 2014
- Invited Colloquium** entitled “Radio-FIR Correlation as a Probe to Star Formation-ISM Interplay in Galaxies”, Astron, The Netherlands May 2013
- Invited Talk** at the *DFG Research Unit 1254 Workshop*, Mainz, Germany July 2012

## CODES DEVELOPED

Radio Thermal/Nonthermal Emission Decomposition and Mapping

Wavelet Analysis-Pattern Recognition and Cross-Correlation Techniques  
Radio & Infrared SED Modeling/Bayesian MCMC Fitting  
Newton-Raphson Iteration Technique (solving non-linear equations)  
Monte-Carlo Simulations

## TEACHING EXPERIENCE

<b>Institute for Research in Fundamental Sciences</b> Physics of The Interstellar Medium	2020 & 2022
<b>Damghan University of Basic Sciences</b> Thermodynamics (Zemansky) Fundamentals of Physics I and II (Halliday) Physics Lab (I, II) for Physics Students	2003/2004
<b>Shahrood University of Technology</b> Fundamentals of Physics I (Halliday) Physics Lab (I) for Engineering Students	Spring 2003

## OUTREACH

Max-Planck Press Release “Energetic Winds blow from the Triangulum Galaxy” Oct 2022  
Max-Planck Press Release “Preparing for the World’s biggest radio telescope” July 2022  
IAC Press Release “ Why is massive star formation quenched in galaxy centers?” Nov 2017  
MPIA/MPIfR/IAC Press Release “Tune your radio: Galaxies sing when forming stars” Feb 2017  
Radio Gavá Interview “Cosmic Magnetism, 25 Apr 2016  
Press Release “New twist to galactic magnetic fields”, Feb 2016  
Co-organizing the IASBS' International Total Eclipse Campaign, 11 Aug 1999  
Organizing night sky tours and meteor-shower observing campaigns, 1994-1997  
Physics Group, Department of Science, Tehran University

## SELECTED SCHOOLS & WORKSHOPS ATTENDED

James Webb Space Telescope workshop – GO1 proposal planning	Mar 2018
4 <sup>th</sup> JVLA Data Reduction Workshop, NRAO, Socorro, NM, USA	Oct 2014
7 <sup>th</sup> IRAM Interferometry School 2010, Grenoble, France	Oct 2010
Herschel Science Demonstration Phase Data Processing Workshop, ESAC Madrid, Spain	Dec 2009
23 <sup>rd</sup> IAU International School for Young Astronomers (ISYA), Zanjan, Iran	July 1997
Second Special Topics in Physics School, held by the Physics Society of Iran for outstanding Physics students, Zanjan, Iran	May 1995

## LANGUAGES

English (C)  
German (B)

Spanish (B)  
Persian (Native)

## **PUBLICATIONS**

### **Books**

Early Disk-Galaxy Formation from JWST to the Milky Way,  
F. Tabatabaei, B. Barbuy & Y. Ting, 2024,  
Cambridge University Press, International Astronomical Union Proceedings Series-IAUS377

### **Articles in Refereed Journals**

63. The stratification of ISM properties in the edge-on galaxy NGC 891 revealed by NIKA2, Katsioli, S., Xilouris E. M., Kramer, C. et al., 2023 A&A, 679, 7
62. Reconciling the magnetic field in central disc galaxies with the dynamical mass using the cosmological simulations, Hosseinirad, M., Tabatabaei, F., Raouf, M., and Roshan, M., 2023 MNRAS, 525, 577
61. Diffusion of cosmic-ray electrons in M 51 observed with LOFAR at 54 MHz, Heesen, V., Schulz, S., et al. 2023 A&A, 672, 11
60. Influence of Magnetic Fields on the Gas Rotation in the Galaxy NGC 6946, Khademi, M., Nasiri, S., Tabatabaei, F. S., 2023 ApJ, 945, 14
59. CHANG-ES XXVI: Insights into cosmic-ray transport from radio halos in edge-on galaxies Stein, M. Heesen, V., Dettmar, R. J., ... Tabatabaei, F. S., et al., 2023, A&A, 670, 158
58. Nearby galaxies in the LOFAR Two-metre Sky Survey. II. The magnetic field-gas relation Heesen, V., Klocke, T. L., Bruegen, M. Tabatabaei, F.S., et al., 2023, A&A, 669, 8
57. Cloud-scale radio surveys of star formation and feedback in Triangulum Galaxy M 33 Tabatabaei, F. S., Cotton, W., Schinnerer, E., Beck, R., et al., 2022, MNRAS, 517, 2990
56. Evolution of thermal and non-thermal radio continuum emission on kpc scales - predictions for SKA Ghasemi-Nodehi, M., Tabatabaei, F. S., Sargent, M., Murphy, E., et al. 2022, MNRAS, 515, 1158
55. Role of Thermal and Non-thermal Processes in the ISM of Magellanic Clouds Hassani, H. Tabatabaei, F. S., Hughes, A., et al., 2022, MNRAS, 510, 11
54. MIGHTEE: Total intensity radio continuum imaging and the COSMOS / XMM-LSS Early Science fields, Heywood, I., Jarvis, M.J.,...Tabatabaei, F., et al., 2021, MNRAS.tmp.2756

53. Radio emission during the formation of stellar clusters in M 33  
Corbelli, E., Braine, J., and Tabatabaei, F. S., 2020, *A&A*, 639, 27
52. Gas and dust cooling along the major axis of M 33 (HerM33es). Herschel/PACS [C II] and [O I] observations, Kramer, C., Nikola, T., Andrel, S., Bertoldi, F., ..Tabatabaei, F., et al., 2020, *A&A*, 639, 61
51. The magnetized disk-halo transition region of M 51  
Kierdorf, M., Mao, S.A., Beck, R., Basu, A., Fletcher, A., .. Tabatabaei, F., et al., 2020, *A&A*, 642, 118
50. Probing the cold magnetized Universe with SPICA-POL (B-BOP)  
Andre Ph. , Hughes, A., Guillet, V... Tabatabaei, F., ,et al. , 2019, Publications of the Astronomical Society of Australia, Cambridge University Press, 36, 29
49. Global correlations between the radio continuum, infrared, and CO emissions in dwarf galaxies  
Filho, Mercedes E., Tabatabaei, Fatemeh S., Sánchez Almeida, Jorge, Muñoz-Tuñón, Casiana, Elmegreen, Bruce G., Monthly Notices of the Royal Astronomical Society, 2019, 484, 543
48. Investigation of the cosmic ray population and magnetic field strength in the halo of NGC 891  
Mulcahy, D. D., Horneffer, A., Beck,R,..Tabatabaei, F. S., et al. *Astronomy & Astrophysics (A&A)* 2018, 615, 98
47. Spatially resolving the dust properties and submillimetre excess in M 33,  
Relaño, M., De Looze, I., Kennicutt, R.C,..Tabatabaei, F.S., et al., *A&A* 2018, 613, 43
46. Discovery of massive star formation quenching by nonthermal effects in the center of NGC 1097,  
Tabatabaei, F.S., Minguez, P., Prieto, M.A., Fernández-Ontiveros, J.A., **Nature Astronomy** 2018, 2, 83
45. Exploring the making of a galactic wind in the star-bursting dwarf irregular galaxy IC 10 with LOFAR,  
Heesen, V., Rafferty, D. A., Horneffer, A.,...Tabatabaei, F.S., et al., Monthly Notices of the Royal Astronomical Society (MNRAS) 2018, 476, 1756
44. The Radio Spectral Energy Distribution and Star-formation Rate Calibration in Galaxies,  
Tabatabaei, F.S., Schinnerer, E., Krause, M., Dumas, G., et al., *Astrophysical Journal (ApJ)* 2017, 836, 185
43. Updated 34-band Photometry for the Sings/KINGFISH Samples of Nearby Galaxies,  
Dale, D. A., Cook, D. O., Roussel, H., ... Tabatabaei, F.S., et al., *ApJ* 2017, 837, 90
42. The molecular gas mass of M33,  
Gratier, P., Braine, J., Schuster, K., ... Tabatabaei, F.S., et al., *A&A* 2017, 600, 27
41. The UK Infrared Telescope M 33 monitoring project - V. The star formation history across the galactic disc,  
Javadi, A., van Loon, J. Th., Khosroshahi, H. G., Tabatabaei, F.S., et al., *MNRAS* 2017, 464, 2103
40. An Empirical Relation between the Large-scale Magnetic Field and the Dynamical Mass



- in Galaxies,  
Tabatabaei, F.S., Martinsson, T. P. K., Knapen, J. H. et al. **Astrophysical Journal Letters**, 2016, 818, L10
39. Towards universal hybrid star formation rate estimators,  
Boquien, M., Kennicutt, R., Calzetti, D., ... Tabatabaei, F.S., A&A 2016, 591, 6
  38. The Ionized Gas in Nearby Galaxies as Traced by the [NII] 122 and 205 $\mu$ m Transitions,  
Herrera-Camus, R., Bolatto, A., Smith, J. D., ... Tabatabaei, F.S., et al., ApJ 2016, 826, 175
  37. Measuring star formation with resolved observations: the test case of M 33,  
Boquien, M., Calzetti, D., Aalto, S., Boselli, A., ...Tabatabaei, F.S., et al., A&A 2015, 578, 8
  36. [C II] 158  $\mu$ m Emission as a Star Formation Tracer,  
Herrera-Camus, R.; Bolatto, A. D., Wolfire, M. G.,...Tabatabaei, F.S., et al. , ApJ 2015, 800, 1
  35. Properties of the Magneto-ionic Medium in the Halo of M51 Revealed by Wide-band Polarimetry, Mao, S., A., Zweibel, E., Ott, J., Tabatabaei, F., ApJ 2015, 800, 92
  34. Variation in the dust emissivity index across M33 with Herschel and Spitzer (HerM33es),  
Tabatabaei, F.S., Braine, J., Xilouris, E. M., et al., A&A 2014, 561, 95
  33. An observational test for correlations between cosmic rays and magnetic fields,  
Stepanov, R., Shukurov, A., Fletcher, A., Beck, R., La Porta, L., Tabatabaei, F.S., MNRAS 2014, 437, 2201
  32. Untangling the Nature of Spatial Variations of Cold Dust Properties in Star Forming Galaxies,  
Kirkpatrick, A., Calzetti, D., Kennicutt, R., Galametz, M. ,... Tabatabaei, F.S., ApJ 2014, 789, 130
  31. A Far-IR View of the Starburst-driven Superwind in NGC 2146,  
Kreckel, K., Armus, L., Groves, B., ... Tabatabaei, F.S., ApJ 2014, 790, 26
  30. A detailed study of the radio-FIR correlation in NGC 6946 with Herschel-PACS/SPIRE from KINGFISH, Tabatabaei, F.S., Schinnerer, E., et al., A&A 2013, 552, 19
  29. Multi-scale radio-infrared correlations in M 31 and M 33: The role of magnetic fields and star formation,  
Tabatabaei, F.S., Berkhuijsen, E. M., Frick, P. et al, A&A 2013, 557,129
  28. Calibration of the total infrared luminosity of nearby galaxies from Spitzer and Herschel bands, Galametz, M., Kennicutt, R. C., ...Tabatabaei, F. et al., MNRAS2013, 431, 1956
  27. How cosmic ray electron propagation affects radio-far-infrared correlations in M 31 and M 33,  
Berkhuijsen, E. M., Beck, R., Tabatabaei, F.S., MNRAS 2013, 435, 1598
  26. Mapping Dust through Emission and Absorption in Nearby Galaxies,  
Kreckel, K., Groves, B., Schinnerer, E., ...Tabatabaei, F.S. et al., ApJ 2013, 771, 62
  25. Spectral energy distributions of H II regions in M 33 (HerM33es),  
Relano, M., Verley, S.,...Tabatabaei, F.S., et al., A&A 2013, 552, 140
  24. Cold Dust in the Giant Barred Galaxy NGC 1365,  
Tabatabaei, F.S., Weiss, A., Combes, F., et al., A&A 2013, 555, 128

23. The heating of dust by old stellar populations in the bulge of M31, Groves, B., Krause, O., Sandstrom, K., ... [Tabatabaei, F.S.](#) et al., MNRAS 2012, 426, 892
22. Mapping the cold dust temperatures and masses of nearby KINGFISH galaxies with Herschel, Galametz, M., Kennicutt, R. C.,... [Tabatabaei, F.S.](#), et al., MNRAS 2012, 425, 763
21. Cool and warm dust emission from M 33 (HerM33es), Xilouris, E. M., [Tabatabaei, F.S.](#), Boquien, M., et al. A&A 2012, 543, 74
20. Cool Dust in the Outer Ring of NGC 1291, Hinz, J. L., Engelbracht, C. W., Skibba, R.,...[Tabatabaei, F.S.](#), ApJ 2012, 756, 75
19. Spectrally resolved C II emission in M 33 (HerM33es): Physical conditions and kinematics around BCLMP 691, Braine, J., Gratier, P., ...[Tabatabaei, F.S.](#) et al., A&A 2012, 544, 55
18. Dust and gas power spectrum in M 33 (HERM33ES), Combes, F. Boquien, M., Kramer, C.,...[Tabatabaei, F.S.](#) et al. A&A 2012, 539, 67
17. Herschel Far-infrared and Submillimeter Photometry for the KINGFISH Sample of nearby Galaxies, Dale, D. A., Aniano, G., Engelbracht, C. W., ...[Tabatabaei, F.](#) et al. ApJ 2012,745, 95
16. The Herschel M 33 extended survey (HerM33es): PACS spectroscopy of starforming region BCLMP302, Mookerjee, B., Kramer, C.,...[Tabatabaei, F.S.](#) A&A 2011, 532,152
15. Local Radio–IR correlation in M51, Dumas, G., Schinnerer, E., [Tabatabaei, F.S.](#), et al., AJ 2011, 141, 41
14. Relating dust, gas and the rate of star formation in M31, [Tabatabaei, F.S.](#) & Berkhuijsen, E. M. A&A 2010, 517, 77
13. Molecular and atomic gas in the Local Group galaxy M 33, Gratier, P., Braine, J., Rodriguez-Fernandez, N. J., ...[Tabatabaei, F.S.](#) et al., A&A 2010, 522, 3
12. Lack of Interaction Between the Dust Grains and the Anomalous Radio Jet in the Nearby Spiral Galaxy NGC 4258, Laine, S., Krause, M., [Tabatabaei, F.S.](#), Siopis, C. AJ 2010, 140, 1084
11. Cool gas and dust in M 33: Results from the HERschel M 33 Extended Survey (HERM33ES), Braine, J., Gratier, P., Kramer, C., ...[Tabatabaei, F.S.](#) et al. A&A 2010, 518, 69
10. Molecular cloud formation and star formation efficiency in M 33. Molecule and star formation in M 33, Braine, J., Gratier, P.,...[Tabatabaei, F.S.](#) et al., A&A 2010, 520, 107
9. 100  $\mu\text{m}$  and 160  $\mu\text{m}$  emission as resolved star-formation rate estimators in M 33 (HERM33ES), Boquien, M., Calzetti, D., Kramer, C. ,...[Tabatabaei, F.S.](#) et al., A&A 2010, 518, 70
8. Searching for Dark Matter in Messier 33, Borriello, E., Longo, G.,...[Tabatabaei, F.S.](#) et al., ApJL 2010, 709, 32
7. Properties of compact 250  $\mu\text{m}$  emission and H II regions in M 33 (HERM33ES), Verley, S., Relano, M., Kramer, C.,...[Tabatabaei, F.S.](#) et al. A&A 2010, 518, 68

6. PACS and SPIRE photometer maps of M 33: First results of the HERschel M 33 Extended Survey, Kramer, C.,...Tabatabaei, F.S. et al. A&A 2010, 518, 67
5. High resolution radio continuum survey of M33: III. Magnetic Fields, Tabatabaei, F.S., Krause, M., Beck, R. & Fletcher A., A&A 2008, 490, 1005
4. High resolution radio continuum survey of M33: II. Thermal and nonthermal emission, Tabatabaei, F.S., Beck, R., Krügel, E., et al. A&A 2007c, 475, 133
3. A multi-scale study of far-infrared and radio emission from Scd galaxy M33, Tabatabaei, F.S., Beck, R., Krause, M., et al. A&A 2007b, 466, 509
2. High-resolution radio continuum survey of M 33. I. The radio maps, Tabatabaei, F.S., Krause, M., and Beck, R. A&A 2007a, V. 472, 785
1. Variation of the radio synchrotron spectral index in the interstellar medium of M33, Tabatabaei, F.S., et al., Astron. Nacht. 2007, 328, 636

### **Published Articles in Conference Proceedings**

26. Role of ISM/IGM Energy Balance in Structure Formation and Evolution of Galaxies, Tabatabaei, F., Ghasemi-Nodehi, M., Sargent M., Murphy, E. J., Schinnerer E., Bonaldi, A., 2024, Proceedings of the International Astronomical Union, Volume 377, pp. 43-47
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