

CONTACT

Dr. Fatemeh Tabatabaei
School of Astronomy
Institute for Research in Fundamental Sciences-IPM
Larak Garden
19395-5531 Tehran, Iran
Tel +98 2123105069
Fax +98 2122806616
Email ftaba@ipm.ir

EXPERTISE/ INTERESTS

Star Formation and Quenching, Structure Formation, Evolution of Galaxies
Physics of the Interstellar Medium: High-Energy Particles, Magnetic Fields, Gas, and Dust
Radio/Sub-mm/Infrared/Optical Observations, Interferometry, Polarization

ACADEMIC EDUCATION

University of Bonn/Max-Planck-Institut fuer Radioastronomie Jan 2005-Jan 2008
Ph.D. in Astrophysics,
Title: “Thermal and Nonthermal Emission from the Nearby Galaxy M33”
Advisers: Rainer Beck & Marita Krause, Co-adviser: Endrik Krügel

Institute for Advanced Studies in Basic Sciences-IASBS Sept 1997- Jan 2000
MSc in Astrophysics,
Title: ‘A Phenomenological Study of Evolution of Galaxies and QSOs’
Adviser: Sadollah Nasiri Gheydari

University of Tehran Sept 1993- Jun 1997
BSc in Solid-State Physics

APPOINTMENTS

Vice-chair, School of Astronomy,
Institute for Research in Fundamental Sciences, Tehran since Oct 2019

Associate Professor,
Institute for Research in Fundamental Sciences, Tehran since Sep 2018

IAC Genéricos Research Fellow,
Instituto de Astrofísica de Canarias, 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,
Heidelberg, Germany Mar 2011- Oct 2014

Postdoc Scholar, Max-Planck-Institut für Radioastronomie,
Bonn, Germany Jan 2008- Mar 2011

Ph.D. Scholar, Max-Planck-Institut für Radioastronomie,
Bonn, Germany Jan 2005- Jan 2008

Visiting Scientist, MPIfR, Bonn, Germany	Sept 2004- Jan 2005
Faculty Member, Damghan University of Basic Sciences, Damghan, Iran	Fall 2003- Spring 2004
Lecturer, Shahrood University of Technology, Shahrood, Iran	Spring 2003
Physics Teacher, Imam Reza Pre-University School, Tehran, Iran	Fall 2000- Fall 2002

LARGE COLLABORATIONS & Memberships

MeerKAT Key Science Project ' <i>MIGHTEE</i> '	since 2020
NIKA2 Key Science Project ' <i>IMEGIN</i> '	since 2019
SKA Science Working Group ' <i>Cosmic Magnetism</i> '	since 2018
SKA Science Working Group ' <i>Continuum</i> '.	since 2016
Herschel Key Science Project ' <i>KINGFISH</i> '	since 2012
Herschel Key Science Project ' <i>HerM33es</i> '	since 2009
LOFAR Key Science Project, ' <i>Magnetism</i> '	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

PEER REVIEW/COMMITTEE PANELS

ERC 2020 Panel, Research Grant Proposal Review	2020/2021
Research Council, School of Nano, IPM	2020-2022
Research Council, School of Astronomy, IPM	since 2018
Review Panel, ESO observing proposal committee	2018
Reviewer, Polish National Science Centre (NCN)	2018
The SUNDIAL Ph.D. Selection Committee at IAC	2017
Review Panel, Giant Meter Wave Telescope	2012
Journal Referee, MNRAS, A&A, and AAS Journals	since 2008

DISTINCTIONS

XXX IAU General Assembly grant	2018
German Research Foundation DFG Award	2011-2014
International Max-Planck Research School (IMPRS) Ph.D. Scholarship	2005-2008
PSI Summer School Scholarship (Special Topics in Physics)	1994

EXTERNALLY FUNDED/GRANTED PROJECTS

<i>Key Insights in Nearby Galaxies:</i> <i>Radio Continuum Survey of the KINGFISH Galaxies,</i> funded by German Research Foundation for <u>my individual research</u> ~ 90,000€	2011-2014
<i>The structure and evolution of galaxies and their central regions,</i> funded by Spanish Ministry of Economy and Competitiveness research grant AYA2016-76219-P ~150,000€ (PI: J. H. Knapen)	2017-2021

OBSERVING GRANTS

Granted 300 h observing time as Principal Investigator (PI)

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

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

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

STUDENT PROJECTS ADVISED/ADVISING

“Uncovering Physical Properties of The ISM at Low Radio Frequencies in M33” Monireh Khatami's PhD thesis Project, IPM & Alzahra University	2021-
“Investigating Millimeter Emission in Nearby Galaxies” Golshan Ejlali's PhD thesis Project, IPM	2020-
“Low-Frequency Radio Emission Properties of IC342” Mohammad R. Nasirzadeh’s Master thesis project, IPM & K.N. Tousi University	2019-
“Role of Thermal and Non-thermal Processes in the ISM of Magellanic Clouds” Graduate Student Hamid Hassani's Master thesis Project IPM & Shahid Beheshti University	2019-2021
“A Detailed Study of Radio-FIR Correlation in Dwarf Irregular Galaxies” Graduate Student Mohammad J. Shahhoseini’s Master thesis Project IPM & Shahid Beheshti University	2019-2021
“Interstellar Medium and Star Formation in NGC1316”	2019-2020

Graduate Student Haleh Mesgari's Master thesis Project
IPM & Shahid Beheshti University

“Mapping Extinction in Nearby Galaxies” 2017-2018
Graduate Student Eduardo Alberto Mantero Castaneda's Master thesis Project
University of La Laguna

“The ISM Energy Balance in the Surroundings of Super-massive Black Holes ” 2015-2016
Graduate Student Paloma Minguez's Master thesis Project, University of La Laguna
(as part of an article we published in the Nature Journal)

“Pattern Recognition and Image Analysis in Astronomy:
A Multi-Scale Analysis of Star Formation Laws” 2015
Graduate Student Marta Reina-Campos' Summer Project, Instituto de Astrofísica de Canarias

TEACHING EXPERIENCE

Institute for Research in Fundamental Sciences Spring 2020
Physics of The Interstellar Medium

Damghan University of Basic Sciences 2003/2004
Thermodynamics (Zemansky)
Fundamentals of Physics I and II (Halliday)
Physics Lab (I, II) for Physics Students

Shahrood University of Technology Spring 2003
Fundamentals of Physics I (Halliday)
Physics Lab (I) for Engineering Students

CONFERENCES ORGANIZED

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)

SELECTED PRESENTATIONS

Contributed talk at virtual meeting: ‘A Precursor View of the SKA Sky’ March 2021
Manchester, UK

Invited Talk 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 <i>Nearby Galaxies at Low Frequencies</i> 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 <i>Star Formation & Feedback in Nearby Galaxies</i> , Prague, Czech Republic	June 2017
Contributed Talk at The Broad Impact of Low-Frequency Observing conference entitled <i>Cloud-Scale GMRT Survey of M33</i> , Bologna, Italy	June 2017
Invited Talk at the DFG Research Unit 1254 Workshop, entitled <i>The KINGFISHER Radio Survey with 100-m</i> , Berlin, Germany	Sept 2016
Invited Review Talk at European Week of Astronomy-EWASS entitled <i>The Physics behind The Radio-IR Correlation</i> , Tenerife, Spain	June 2015
Invited Colloquium entitled “Impact of Star Formation on Dusty and Magnetized ISM in Galaxies”, Tenerife, Spain	June 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 <i>DFG Research Unit 1254 Workshop</i> , Mainz, Germany	July 2012

CODES DEVELOPED

TRT Thermal/Nonthermal 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

SELECTED SCHOOLS & WORKSHOPS ATTENDED

James Webb Space Telescope workshop – GO1 proposal planning	Mar 2018
4 th JVLA Data Reduction Workshop, NRAO, Socorro, NM, USA	Oct 2014
7 th IRAM Interferometry School 2010, Grenoble, France	Oct 2010

Herschel Science Demonstration Phase Data Processing Workshop, ESAC Madrid, Spain	Dec 2009
23 rd 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

OUTREACH

- چشمان رادیویی اخترشناسان، مجله نجوم، شماره ۲۷۳، ۱۳۹۸،
 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

PUBLICATIONS

(as of 7/11/2021)

Total number: 84

Total citation: 2977

H-index: 31 (Google Scholar)

Refereed Articles in Main ISI Journals

55. *Role of Thermal and Non-thermal Processes in the ISM of Magellanic Clouds*
Hassani, H. Tabatabaei, F. S., Hughes, A., et al., 2021, MNRAS accepted
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 μ 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 μ 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*, Mookerjea, 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 μm and 160 μm 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 μm 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

23. *Twinkle little stars: Massive stars are quenched in strong magnetic fields*
Tabatabaei, F., Prieto, A.M., Fernandez-Ontiveros, J.A., Astronomy in Focus XXX, presented at IAU XXX General Assembly, Vienna, Austria. Proceedings of the IAU, 2020, pp. 118-118
22. *The Magnetized Disk-Halo Transition Region of M51*
Kierdorf, M., Mao, S.A., Beck, R., Basu, A., Fletcher, A., .. Tabatabaei, F., et al., Astronomy in Focus XXX, presented at IAU XXX General Assembly, Vienna, Austria. Proceedings of the IAU, 2020, pp. 319-322
21. *Towards a Theory for Star Formation on All Scales*
Murphy, Eric, Armus, Lee, Bolato Albeto, ...Tabatabaei, Fatemeh S., et al., 2019
Astro2020: Decadal Survey on Astronomy and Astrophysics, science white papers, no. 523;
Bulletin of the American Astronomical Society, Vol. 51, Issue 3, id. 523
20. *Radio Continuum Emission from Galaxies: An Accounting of Energetic Processes*
Murphy, E. J. Condon, J. J., Alberdi, A., ...Tabatabaei, F. S., Turner, J. L., 2019
Science with a Next Generation Very Large Array, ASP Conference Series, 517. 421
19. *The Role of Magnetic Fields in The Evolution of Galaxies*
Tabatabaei, Fatemeh S., New Insights in Extragalactic Magnetic Fields", XXXth General Assembly of the IAU, Vienna, August 20-31, 2018
18. *The Magnetized Disk-Halo Transition Region of M51*
Kierdorf, M., Mao, S. A., Fletcher, A., Beck, R., Haverkorn, M., Basu, A., Tabatabaei, F., Ott, J.
17. *Uncovering star formation feedback and magnetism in galaxies with radio continuum surveys*,
Tabatabaei, F.S., Highlights on Spanish Astrophysics IX, July 18-22, 2016, Bilbao, Spain
16. *Unveiling The Physics of Star Formation and Feedback in Galaxies*,
Tabatabaei, F.S., Proceedings of the conference "The many facets of extragalactic radio surveys: towards new scientific challenges", 20-23 Oct. 2015, Bologna, Italy
15. *The Astrophysics of Star Formation Across Cosmic Time at >10 GHz with the Square Kilometre Array*, Murphy, E.M., et al., Proceedings of Advancing Astrophysics with the Square Kilometre Array (AASKA14). 9 -13 June 2014. Giardini Naxos, Italy
14. *Magnetic Field Tomography in Nearby Galaxies with the Square Kilometre Array*, Heald, G., et al., Proceedings of Advancing Astrophysics with the Square Kilometre Array (AASKA14). 9 -13 June 2014. Giardini Naxos, Italy
13. *Structure, dynamical impact and origin of magnetic fields in nearby galaxies in the SKA era*, Beck, R., et al., Proceedings of Advancing Astrophysics with the Square Kilometre Array (AASKA14). 9 -13 June 2014. Giardini Naxos, Italy

12. *Dust emission from the atomic and molecular gas in M 33: a changing beta*,
Braine J., Tabatabaei, F.S., Xilouris, M., Highlights of Astronomy (HiA) 2015, 16, 617, IAU XXIX General Assembly Highlights, 3-14 August 2016, Hawaii, USA
11. *The resolved radio-FIR correlation in nearby galaxies with Herschel and Spitzer*,
Tabatabaei, F. S. et al., Proceedings of the International Astronomical Union, IAU Symposium (IAUS) 2012, Volume 284, p. 400-403, September 5-9 2011, Preston, UK
10. *Variation in the dust spectral index across M33*,
Tabatabaei, F.S. et al., Proceedings of the International Astronomical Union, IAU Symposium (IAUS) 2012, Volume 284, p. 125-127, September 5-9 2011, Preston, UK
9. *The Herschel M33 Extended Survey: first results*,
Bertoldi, F. Kramer, C. ...Tabatabaei, F.S. et al. 38th COSPAR Scientific Assembly 18-15 July 2010, Bremen, Germany
8. *The Herschel view of HII regions in M 33 (HERM33ES)*,
Verley, S., Relaño, M., Kramer, C. et al., Proceedings of the Annual meeting of the French Society of Astronomy and Astrophysics, SF2A-2010, p.57, 21-24 June 2010, Marseille, France
7. *Magnetism in the nearby galaxy M33*,
Tabatabaei, F.S., et al., Proceedings of the International Astronomical Union Symposium, 2009, v. 259, p.545, 3-7 November 2008, Tenerife, Spain
6. *Relative distributions of cosmic ray electrons and magnetic fields in the ISM*,
Stepanov, R., Fletcher, A., Shukurov, A., Beck, R., La Porta, L., Tabatabaei, F.S., Proceedings of the International Astronomical Union Symposium 2009, v.259, p.93, 3-7 November 2008, Tenerife, Spain
5. *The radio-infrared correlation in galaxies*,
Tabatabaei, F. S., Beck, R., Brkhuijsen, E., Highlights of Astronomy (HiA) 2010, Volume 15, p. 417-417, IAU XXVI General Assembly 3-14 August, 2009, Rio de Janeiro, Brazil
4. *Interaction between Dust Grains and the Radio Jet in NGC 4258*,
Laine, S. J., Krause, M., Tabatabaei, F., Sopijs, C. Bulletin of American Astronomical Society Meeting 213, v. 41, p. 455, 4-9 January 2009, California, USA
3. *A Multiscale Study of Infrared and Radio Emission from M33*,
Tabatabaei, F.S., et al., ASP Conference Series v. 396, p.396, 87, Proceedings of the conference 'Formation and Evolution of Galaxy Disks', 1-5 October 2007, Rome, Italy
2. *Variations of the Radio Synchrotron Spectral Index in M33*,
Tabatabaei, F.S., et al., ASP Conference Series v. 396, p. 87, Proceedings of the conference 'Formation and Evolution of Galaxy Disks', 1-5 October 2007, Rome, Italy
1. *Spitzer Images of M33: A Probe to Radio-FIR Correlation*,
Tabatabaei, F.S., et al., Astronomische Nachrichten 2005, 326, 532, Proceedings of the German Annual meeting of Astronomy, 26 September - 1 October 2005, Köln, Germany

Published Data Catalogs

6. *SEDs of the radio continuum from KINGFISHER*
Tabatabaei et al. 2017, VizieR On-line Data Catalog: J/ApJ/836/185
5. *Multi-resolution images of M33*
Boquien, VizieR On-line Data Catalog: J/A+A/578/A8
4. *M33 HII regions SED*
Relano et al. 2013, VizieR On-line Data Catalog: J/A+A/552/A140
3. *Radio-farIR correlation in NGC 6946*
Tabatabaei, F. S., et al. 2013, VizieR On-line Data Catalog: J/A+A/552/A19
2. *M33 CO(2-1) and HI integrated intensity maps*
Gratier, et al. 2010, VizieR On-line Data Catalog: J/A+A/522/A3
1. *Radio continuum survey of M33*
Tabatabaei, F. S., et al. 2007, VizieR On-line Data Catalog: J/A+A/472/785