

Bibliography from ADS file: sampoorna.bib  
September 14, 2022

- Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., & Sankarasubramanian, K., "Fast Iterative Techniques for Polarized Radiative Transfer in Spherically Symmetric Moving Media", 2020ApJ...903...6M ADS
- Nagendra, K. N., Sowmya, K., Sampoorna, M., Stenflo, J. O., & Anusha, L. S., "Importance of Angle-dependent Partial Frequency Redistribution in Hyperfine Structure Transitions Under the Incomplete Paschen-Back Effect Regime", 2020ApJ...898...49N ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., & Sankarasubramanian, K., "Resonance Line Polarization in Spherically Symmetric Moving Media: a Parametric Study", 2020arXiv200106201M ADS
- Sampoorna, M., Nagendra, K. N., Sowmya, K., Stenflo, J. O., & Anusha, L. S., "Polarized Line Formation in Arbitrary Strength Magnetic Fields: The Case of a Two-level Atom with Hyperfine Structure Splitting", 2019ApJ...883...188S ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., & Sankarasubramanian, K., "Resonance Line Polarization in Spherically Symmetric Moving Media: a Parametric Study.", 2019spw.confE...14M ADS
- Nagendra, K. N., Sowmya, K., Sampoorna, M., Stenflo, J. O., & Anusha, L. S., "Polarized Line Transfer in the Incomplete Paschen-Back Effect Regime with Angle-dependent Partial Frequency Redistribution.", 2019spw.confE...13N ADS
- Nagendra, K. N. & Sampoorna, M., "Solution of Polarized Radiative Transfer Equation with Cross-redistribution.", 2019spw.confE...1N ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., & Sankarasubramanian, K., "Polarized Line Formation in Spherically Symmetric Atmospheres with Velocity Fields", 2019ApJ...879...48M ADS
- Sampoorna, M., Nagendra, K. N., Sowmya, K., Stenflo, J. O., & Anusha, L. S., "Polarized Line Formation with Incomplete Paschen-Back Effect and Partial Frequency Redistribution", 2019ASPC...519...113S ADS
- Sampoorna, M., Nagendra, K. N., Frisch, H., & Stenflo, J. O., "Effects of Angle-Dependent Partial Frequency Redistribution on Polarized Line Profiles", 2019ASPC...519...109S ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., Anusha, L. S., & Sankarasubramanian, K., "Polarized Line Formation in Spherically Symmetric Expanding Atmospheres", 2019ASPC...519...27M ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., & Sankarasubramanian, K., "Polarized Scattering Matrix for Magnetic Dipole Transitions", 2019ASPC...526...207M ADS
- Sampoorna, M. & Nagendra, K. N., "Comoving Frame Method for Polarized PRD Line Transfer with Velocity Fields", 2019ASPC...526...153S ADS
- Supriya, H. D., Nagendra, K. N., Sampoorna, M., Stenflo, J. O., & Ravindra, B., "Effects of Lower-Level Polarization and Partial Frequency Redistribution on Stokes Profiles", 2019ASPC...526...61S ADS
- Sowmya, K., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Partial Frequency Redistribution Theory with Paschen-Back Effect: Application to Li I 6708 Å Lines", 2019ASPC...526...43S ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., & Sankarasubramanian, K., "Coronal magnetic field measurements using forbidden emission lines", 2018IAUS...340...61M ADS
- Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., "Polarized Line Formation in Arbitrary Strength Magnetic Fields Angle-averaged and Angle-dependent Partial Frequency Redistribution", 2017ApJ...844...97S ADS
- Megha, A., Sampoorna, M., Nagendra, K. N., & Sankarasubramanian, K., "Hanle-Zeeman Scattering Matrix for Magnetic Dipole Transitions", 2017ApJ...841...129M ADS
- Sampoorna, M. & Nagendra, K. N., "Importance of Cross-redistribution in Scattering Polarization of Spectral Lines: The Cases of  $^3P$ - $^3S$  Triplets of Mg I and Ca I", 2017ApJ...838...95S ADS
- Sampoorna, M. & Nagendra, K. N., "Polarized Line Formation in Non-monotonic Velocity Fields", 2016ApJ...833...32S ADS
- Supriya, H. D., Sampoorna, M., Nagendra, K. N., Stenflo, J. O., & Ravindra, B., "Polarized Line Formation with Lower-level Polarization and Partial Frequency Redistribution", 2016ApJ...828...84S ADS
- Sowmya, K., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Polarized Scattering of Light for Arbitrary Magnetic Fields with Level-crossings from the Combination of Hyperfine and Fine Structure Splittings", 2015ApJ...814...127S ADS
- Sampoorna, M. & Nagendra, K. N., "Partial Redistribution Effects on Polarized Lines Formed in Moving Media in the Presence of a Weak Magnetic Field", 2015IAUS...305...387S ADS
- Smitha, H. N., Nagendra, K. N., Stenflo, J. O., et al., "A revisit to model the Cr i triplet at 5204-5208 Å and the Ba ii D<sub>2</sub> line at 4554 Å in the Second Solar Spectrum", 2015IAUS...305...372S ADS
- Sowmya, K., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Paschen-Back effect involving atomic fine and hyperfine structure states", 2015IAUS...305...154S ADS
- Sampoorna, M. & Nagendra, K. N., "Polarized Line Formation in Moving Atmospheres with Partial Frequency Redistribution and a Weak Magnetic Field", 2015ApJ...812...28S ADS
- Sowmya, K., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Polarized Light Scattering with the Paschen-Back Effect, Level-crossing of Fine Structure States, and Partial Frequency Redistribution", 2014ApJ...793...71S ADS
- Smitha, H. N., Nagendra, K. N., Stenflo, J. O., & Sampoorna, M., "The Role of Quantum Interference and Partial Redistribution in the Solar Ba <font size=2>II D<sub>2</sub> 4554 Å Line", 2014ASPC...489...213S ADS
- Sampoorna, M., "Polarized Line Formation with Angle-Dependent Partial Frequency Redistribution", 2014ASPC...489...197S ADS
- Sowmya, K., Nagendra, K. N., & Sampoorna, M., "Intrinsically Polarized Blend Lines", 2014ASPC...489...125S ADS
- Supriya, H. D., Nagendra, K. N., Ravindra, B., & Sampoorna, M., "Electron Scattering Redistribution Effect on Atomic Line Polarization", 2014ASPC...489...117S ADS
- , "Solar Polarization 7", 2014ASPC...489...N ADS
- Sowmya, K., Nagendra, K. N., Stenflo, J. O., & Sampoorna, M., "Polarized Scattering with Paschen-Back Effect, Hyperfine Structure, and Partial Frequency Redistribution in Magnetized Stellar Atmospheres", 2014ApJ...786...150S ADS
- Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., "Line-interlocking Effects on Polarization in Spectral Lines by Rayleigh and Raman Scattering", 2013ApJ...770...92S ADS
- Smitha, H. N., Nagendra, K. N., Stenflo, J. O., & Sampoorna, M., "Modeling the Quantum Interference Signatures of the Ba II D<sub>2</sub> 4554 Å Line in the Second Solar Spectrum", 2013ApJ...768...163S ADS
- Supriya, H. D., Sampoorna, M., Nagendra, K. N., Ravindra, B., & Anusha, L. S., "An efficient decomposition technique to solve angle-dependent Hanle scattering problems", 2013JQSRT...119...67S ADS
- Supriya, H. D., Smitha, H. N., Nagendra, K. N., Ravindra, B., & Sampoorna, M., "Quantum interference with angle-dependent partial frequency redistribution: solution of the polarized line transfer in the non-magnetic case", 2013MNRAS...429...275S ADS
- Smitha, H. N., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Polarized line formation with J-state interference in the presence of magnetic fields: A Heuristic treatment of collisional frequency redistribution", 2013JQSRT...115...46S ADS
- Smitha, H. N., Sowmya, K., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Polarized Line Transfer with F-state Interference in a Non-magnetic Medium: Partial Frequency Redistribution Effects in the Collisionless Regime", 2012ApJ...758...112S ADS
- Supriya, H. D., Nagendra, K. N., Sampoorna, M., & Ravindra, B., "The effect of electron scattering redistribution on atomic line polarization", 2012MNRAS...425...527S ADS
- Nagendra, K. N. & Sampoorna, M., "Polarized Partial Frequency Redistribution in Subordinate Lines. II. Solution of the Transfer Equation with Rayleigh Scattering", 2012ApJ...757...33N ADS
- Sowmya, K., Nagendra, K. N., & Sampoorna, M., "Blend lines in the polarized spectrum of the Sun", 2012MNRAS...423...2949S ADS
- Frisch, H., Anusha, L. S., Bianda, M., et al., "Forward-scattering Hanle effect in the solar Ca I 4227 Å line", 2012EAS...55...59F ADS
- Smitha, H. N., Nagendra, K. N., Stenflo, J. O., et al., "J-state interference signatures in the second solar spectrum. Modeling the Cr i triplet at 5204-5208 Å", 2012A&A...541A...24S ADS
- Sampoorna, M., "Polarized Partial Frequency Redistribution in Subordinate Lines. I. Resonance Scattering with Collisions", 2012ApJ...745...189S ADS
- Nagendra, K. N. & Sampoorna, M., "Spectral line polarization with angle-dependent partial frequency redistribution. IV. Scattering expansion method for the Hanle effect", 2011A&A...535A...88N ADS
- Smitha, H. N., Nagendra, K. N., Sampoorna, M., & Stenflo, J. O., "Radiative transfer with J-state interference in a two-term atom. Partial frequency redistribution in the non-magnetic case", 2011A&A...535A...35S ADS
- Anusha, L. S., Nagendra, K. N., Bianda, M., et al., "Analysis of the Forward-scattering Hanle Effect in the Ca I 4227 Å Line", 2011ApJ...737...95A ADS
- Sampoorna, M., "Spectral line polarization with angle-dependent partial frequency redistribution. III. Single scattering approximation for the Hanle effect", 2011A&A...532A...52S ADS
- Bianda, M., Ramelli, R., Anusha, L. S., et al., "Observations of the forward scattering Hanle effect in the Ca I 4227 Å line", 2011A&A...530L...13B ADS

Smitha, H. N., Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., “Polarized Line Formation with J-state Interference in the Presence of Magnetic Fields. I. Partial Frequency Redistribution in the Collisionless Regime”, 2011ApJ...733...4S [ADS](#)

Sampoorna, M., “m-state Interference with Partial Frequency Redistribution for Polarized Line Formation in Arbitrary Magnetic Fields”, 2011ApJ...731..114S [ADS](#)

Bianda, M., Ramelli, R., Stenflo, J. O., et al., “Observations of the Solar Ca I 4227 Å Line”, 2011ASPC...437...67B [ADS](#)

Anusha, L. S., Stenflo, J. O., Frisch, H., et al., “Linear Polarization of the Solar Ca I 4227 Å Line: Modeling with Radiative Transfer and Last Scattering Approximation”, 2011ASPC...437...57A [ADS](#)

Sampoorna, M., Nagendra, K. N., & Frisch, H., “Spectral line polarization with angle-dependent partial frequency redistribution. II. Accelerated lambda iteration and scattering expansion methods for the Rayleigh scattering”, 2011A&A...527A..89S [ADS](#)

Sampoorna, M., Trujillo Bueno, J., & Landi Degl’Innocenti, E., “On the Sensitivity of Partial Redistribution Scattering Polarization Profiles to Various Atmospheric Parameters”, 2010ApJ...722.1269S [ADS](#)

Anusha, L. S., Nagendra, K. N., Stenflo, J. O., et al., “Generalization of the Last Scattering Approximation for the Second Solar Spectrum Modeling: The Ca I 4227 Å Line as a Case Study”, 2010ApJ...718..988A [ADS](#)

Nagendra, K. N., Sampoorna, M., & Anusha, L. S., “Recent Developments in Polarized Line Formation in Magnetic Fields”, 2010ASSP...17..139N [ADS](#)

Sampoorna, M. & Trujillo Bueno, J., “Gauss-Seidel and Successive Overrelaxation Methods for Radiative Transfer with Partial Frequency Redistribution”, 2010ApJ...712.1331S [ADS](#)

Anusha, L. S., Sampoorna, M., Frisch, H., & Nagendra, K. N., “The Hanle Effect as Diagnostic Tool for Turbulent Magnetic Fields”, 2010ASSP...19..390A [ADS](#)

Sampoorna, M., “Probability Density Functions to Represent Magnetic Fields at the Solar Surface”, 2010ASSP...19..141S [ADS](#)

Sampoorna, M., Stenflo, J. O., Nagendra, K. N., et al., “Origin of Spatial Variations of Scattering Polarization in the Wings of the Ca I 4227 Å Line”, 2009ApJ...699.1650S [ADS](#)

Frisch, H., Anusha, L. S., Sampoorna, M., & Nagendra, K. N., “The Hanle effect in a random magnetic field. Dependence of the polarization on statistical properties of the magnetic field”, 2009A&A...501..335F [ADS](#)

Nagendra, K. N. & Sampoorna, M., “Numerical Methods in Polarized Line Formation Theory”, 2009ASPC...405..261N [ADS](#)

Oo, Y. Y., San, P. P., Sampoorna, M., Nagendra, K. N., & Ramachandran, G., “Phase Matrices for Higher Multipoles of Scattering in External Magnetic Fields”, 2009ASPC...405..119O [ADS](#)

Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., “Theory of Polarized Scattering in the Mixed Hanle-Zeeman Regime”, 2009ASPC...405...93S [ADS](#)

Sampoorna, M., “Modeling the second solar spectrum. An empirical approach”, 2009MmSAI...80..696S [ADS](#)

Nagendra, K. N., Anusha, L. S., & Sampoorna, M., “Polarization : Proving ground for methods in radiative transfer.”, 2009MmSAI...80..678N [ADS](#)

Sampoorna, M., Nagendra, K. N., Frisch, H., & Stenflo, J. O., “Zeeman line formation in solar magnetic fields. Studies with empirical probability distribution functions”, 2008A&A...485..275S [ADS](#)

Oo, Y. Y., Phyu San, P., Sampoorna, M., Nagendra, K. N., & Ramachandran, G., “Polarization phase matrices for radiation scattering on atoms in external magnetic fields: The case of forbidden transitions in astrophysics”, 2008arXiv0805.38600 [ADS](#)

Sampoorna, M., Frisch, H., & Nagendra, K. N., “Some aspects of polarized line formation in magneto-turbulent media”, 2008NewA...13..233S [ADS](#)

Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., “Hanle-Zeeman Redistribution Matrix. III. Solution of the Polarized Line Formation Problem”, 2008ApJ...679..889S [ADS](#)

Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., “Hanle-Zeeman Redistribution Matrix. II. Comparison of Classical and Quantum Electrodynamical Approaches”, 2007ApJ...670.1485S [ADS](#)

Oo, Y. Y., Sampoorna, M., Nagendra, K. N., Ananthamurthy, S., & Ramachandran, G., “Scattering polarization in the presence of magnetic and electric fields”, 2007JQSRT.108..161O [ADS](#)

Sampoorna, M., Nagendra, K. N., & Stenflo, J. O., “Hanle-Zeeman Redistribution Matrix. I. Classical Theory Expressions in the Laboratory Frame”, 2007ApJ...663..625S [ADS](#)

Frisch, H., Sampoorna, M., & Nagendra, K. N., “Turbulent magnetic field averages for the Zeeman effect.”, 2007MmSAI...78..142F [ADS](#)

Frisch, H., Sampoorna, M., & Nagendra, K. N., “Polarized Spectral Line Formation in Turbulent Magnetic Fields: The Zeeman and Hanle Effects”, 2006ASPC...358..126F [ADS](#)

Frisch, H., Sampoorna, M., & Nagendra, K. N., “Stochastic polarized line formation. II. Zeeman line transfer in a random magnetic field”, 2006A&A...453.1095F [ADS](#)

Frisch, H., Sampoorna, M., & Nagendra, K. N., “Stochastic polarized line formation. I. Zeeman propagation matrix in a random magnetic field”, 2005A&A...442...11F [ADS](#)