

# Marco Prato

## List of Publications by Year in descending order

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Version: 2024-02-01

58  
papers

1,030  
citations

471061

17  
h-index

433756

31  
g-index

58  
all docs

58  
docs citations

58  
times ranked

830  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Deducing Electron Properties from Hard X-ray Observations. <i>Space Science Reviews</i> , 2011, 159, 301-355.  | 3.7 | 143       |
| 2  | Deep unfolding of a proximal interior point method for image restoration. <i>Inverse Problems</i> , 2020, 36, 034005.  | 1.0 | 73        |
| 3  | Variable Metric Inexact Line-Search-Based Methods for Nonsmooth Optimization. <i>SIAM Journal on Optimization</i> , 2016, 26, 891-921.   | 1.2 | 64        |
| 4  | Electron Flux Spectral Imaging of Solar Flares through Regularized Analysis of Hard X-ray Source Visibilities. <i>Astrophysical Journal</i> , 2007, 665, 846-855.                  | 1.6 | 56        |
| 5  | Composition of fine and coarse particles in a coastal site of the central Mediterranean: Carbonaceous species contributions. <i>Atmospheric Environment</i> , 2011, 45, 7470-7477. | 1.9 | 54        |
| 6  | Efficient deconvolution methods for astronomical imaging: algorithms and IDL-GPU codes. <i>Astronomy and Astrophysics</i> , 2012, 539, A133.                                       | 2.1 | 53        |
| 7  | Anisotropic Bremsstrahlung Emission and the Form of Regularized Electron Flux Spectra in Solar Flares. <i>Astrophysical Journal</i> , 2004, 613, 1233-1240.                        | 1.6 | 48        |
| 8  | New convergence results for the scaled gradient projection method. <i>Inverse Problems</i> , 2015, 31, 095008.   | 1.0 | 47        |
| 9  | Accuracy of Funduscopy to Identify True Edema versus Pseudoedema of the Optic Disc. , 2012, 53, 1.   |     | 45        |
| 10 | On the convergence of a linesearch based proximal-gradient method for nonconvex optimization. <i>Inverse Problems</i> , 2017, 33, 055005.  | 1.0 | 39        |
| 11 | HARD X-RAY IMAGING OF SOLAR FLARES USING INTERPOLATED VISIBILITIES. <i>Astrophysical Journal</i> , 2009, 703, 2004-2016.   | 1.6 | 37        |
| 12 | A convergent blind deconvolution method for post-adaptive-optics astronomical imaging. <i>Inverse Problems</i> , 2013, 29, 065017.   | 1.0 | 37        |
| 13 | Electron Bremsstrahlung Emission and the Inference of Electron Flux Spectra in Solar Flares. <i>Astrophysical Journal</i> , 2007, 670, 857-861.                                    | 1.6 | 29        |
| 14 | A New Steplength Selection for Scaled Gradient Methods with Application to Image Deblurring. <i>Journal of Scientific Computing</i> , 2015, 65, 895-919.                           | 1.1 | 26        |
| 15 | Nonnegative image reconstruction from sparse Fourier data: a new deconvolution algorithm. <i>Inverse Problems</i> , 2010, 26, 095001.  | 1.0 | 24        |
| 16 | A New Semiblind Deconvolution Approach for Fourier-Based Image Restoration: An Application in Astronomy. <i>SIAM Journal on Imaging Sciences</i> , 2013, 6, 1736-1757.             | 1.3 | 24        |
| 17 | Regularized Reconstruction of the Differential Emission Measure from Solar Flare Hard X-Ray Spectra. <i>Solar Physics</i> , 2006, 237, 61-83.                                      | 1.0 | 23        |
| 18 | A block coordinate variable metric linesearch based proximal gradient method. <i>Computational Optimization and Applications</i> , 2018, 71, 5-52.                                 | 0.9 | 21        |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 19 | A regularization algorithm for decoding perceptual temporal profiles from fMRI data. <i>NeuroImage</i> , 2011, 56, 258-267.   | 2.1 | 19        |
| 20 | Inverse problems in machine learning: An application to brain activity interpretation. <i>Journal of Physics: Conference Series</i> , 2008, 135, 012085.                              | 0.3 | 14        |
| 21 | A Scaled Gradient Projection Method for Bayesian Learning in Dynamical Systems. <i>SIAM Journal of Scientific Computing</i> , 2015, 37, A1297-A1318.                                  | 1.3 | 13        |
| 22 | THE LOCATION OF CENTROIDS IN PHOTON AND ELECTRON MAPS OF SOLAR FLARES. <i>Astrophysical Journal</i> , 2009, 706, 917-922.   | 1.6 | 13        |
| 23 | A blind deconvolution method for ground based telescopes and Fizeau interferometers. <i>New Astronomy</i> , 2015, 40, 1-13.   | 0.8 | 12        |
| 24 | A cyclic block coordinate descent method with generalized gradient projections. <i>Applied Mathematics and Computation</i> , 2016, 286, 288-300.                                      | 1.4 | 12        |
| 25 | Convergence of Inexact Forward-Backward Algorithms Using the Forward-Backward Envelope. <i>SIAM Journal on Optimization</i> , 2020, 30, 3069-3097.                                    | 1.2 | 12        |
| 26 | Accelerated gradient methods for the x-ray imaging of solar flares. <i>Inverse Problems</i> , 2014, 30, 055004.   | 1.0 | 10        |
| 27 | Deep Neural Networks for Inverse Problems with Pseudodifferential Operators: An Application to Limited-Angle Tomography. <i>SIAM Journal on Imaging Sciences</i> , 2021, 14, 470-505. | 1.3 | 10        |
| 28 | Recent Advances in Variable Metric First-Order Methods. <i>Springer INdAM Series</i> , 2019, , 1-31.  | 0.4 | 9         |
| 29 | Regularization Methods for the Solution of Inverse Problems in Solar X-ray and Imaging Spectroscopy. <i>Archives of Computational Methods in Engineering</i> , 2009, 16, 109-160.     | 6.0 | 7         |
| 30 | On the filtering effect of iterative regularization algorithms for discrete inverse problems. <i>Inverse Problems</i> , 2013, 29, 125013.   | 1.0 | 7         |
| 31 | Determining the Spatial Variation of Accelerated Electron Spectra in Solar Flares. <i>AIP Conference Proceedings</i> , 2008, , .  | 0.3 | 6         |
| 32 | A convergent least-squares regularized blind deconvolution approach. <i>Applied Mathematics and Computation</i> , 2015, 259, 173-186.   | 1.4 | 6         |
| 33 | A Regularized Visibility-Based Approach to Astronomical Imaging Spectroscopy. <i>SIAM Journal on Imaging Sciences</i> , 2009, 2, 910-930.   | 1.3 | 5         |
| 34 | New convergence results for the inexact variable metric forward-backward method. <i>Applied Mathematics and Computation</i> , 2021, 392, 125719.                                      | 1.4 | 5         |
| 35 | Learned Image Deblurring by Unfolding a Proximal Interior Point Algorithm. , 2019, , .  |     | 4         |
| 36 | Deducing Electron Properties from Hard X-ray Observations. , 2011, , 301-355.   |     | 4         |

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|----|---|-----|-----------|
| 37 | Regularized solution of the solar Bremsstrahlung inverse problem: model dependence and implementation issues. Inverse Problems in Science and Engineering, 2008, 16, 523-545. | 1.2 | 3         |
| 38 | On the constrained minimization of smooth Kurdyka-Åojasiewicz functions with the scaled gradient projection method. Journal of Physics: Conference Series, 2016, 756, 012001. | 0.3 | 2         |
| 39 | Phase estimation in differential-interference-contrast (DIC) microscopy. , 2016, , .  |     | 2         |
| 40 | A comparison of edge-preserving approaches for differential interference contrast microscopy. Inverse Problems, 2017, 33, 085009.   | 1.0 | 2         |
| 41 | A Bregman inexact linesearch-based forward-backward algorithm for nonsmooth nonconvex optimization. Journal of Physics: Conference Series, 2018, 1131, 012013.                | 0.3 | 2         |
| 42 | A Hybrid Interior Point - Deep Learning Approach for Poisson Image Deblurring. , 2020, , .  |     | 2         |
| 43 | Efficient Block Coordinate Methods for Blind Cauchy Denoising. Lecture Notes in Computer Science, 2020, , 198-211.  | 1.0 | 2         |
| 44 | A practical use of regularization for supervised learning with kernel methods. Pattern Recognition Letters, 2013, 34, 610-618.  | 2.6 | 1         |
| 45 | Scaled Gradient Projection Methods for Astronomical Imaging. EAS Publications Series, 2013, 59, 325-356.  | 0.3 | 1         |
| 46 | Strehl-constrained reconstruction of post-adaptive optics data and the Software Package AIRY, v. 6.1. Proceedings of SPIE, 2014, , .  | 0.8 | 1         |
| 47 | An alternating minimization method for blind deconvolution from Poisson data. Journal of Physics: Conference Series, 2014, 542, 012006.                                       | 0.3 | 1         |
| 48 | Imaging spectroscopy of hard x-ray sources in solar flares using regularized analysis of source visibilities. Journal of Physics: Conference Series, 2008, 124, 012034.       | 0.3 | 0         |
| 49 | A visibility-based approach using regularization for imaging-spectroscopy in solar X-ray astronomy. Journal of Physics: Conference Series, 2008, 135, 012084.                 | 0.3 | 0         |
| 50 | A Novel Gradient Projection Approach for Fourier-Based Image Restoration. , 2010, , .   |     | 0         |
| 51 | An image reconstruction method from Fourier data with uncertainties on the spatial frequencies. Journal of Physics: Conference Series, 2013, 464, 012008.                     | 0.3 | 0         |
| 52 | Filter factor analysis of scaled gradient methods for linear least squares. Journal of Physics: Conference Series, 2013, 464, 012006.   | 0.3 | 0         |
| 53 | Application of cyclic block generalized gradient projection methods to poisson blind deconvolution. , 2015, , .   |     | 0         |
| 54 | The software package AIRY 7.0: new efficient deconvolution methods for post-adaptive optics data. , 2016, , .   |     | 0         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 55 | TV-regularized phase reconstruction in differential-interference-contrast (DIC) microscopy. AIP Conference Proceedings, 2016, , . | 0.3 | 0         |
| 56 | A fingerprint of a heterogeneous data set. Advances in Data Analysis and Classification, 0, , 1.                                  | 0.9 | 0         |
| 57 | Multiple Image Deblurring with High Dynamic-Range Poisson Data. Springer INdAM Series, 2019, , 117-140.                           | 0.4 | 0         |
| 58 | A comparison of nested primal-dual forward-backward methods for Poisson image deblurring. , 2021, , .                             |     | 0         |