# Arnold J Den Dekker

## List of Publications by Citations

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|---|---|---|---|
| 62 papers | 1,776 citations | 23 h-index | 41 g-index |
| 67 ext. papers | 2,058 ext. citations | 4.3 avg, IF | 4.46 L-index |

| # | Paper | IF | Citations |
|---|-------|-----|-----------|
| 62 | Maximum-likelihood estimation of Rician distribution parameters. *IEEE Transactions on Medical Imaging*, **1998**, 17, 357-61 | 11.7 | 264 |
| 61 | Estimation of the noise in magnitude MR images. *Magnetic Resonance Imaging*, **1998**, 16, 87-90 | 3.3 | 206 |
| 60 | Optimal experimental design for diffusion kurtosis imaging. *IEEE Transactions on Medical Imaging*, **2010**, 29, 819-29 | 11.7 | 154 |
| 59 | Automatic estimation of the noise variance from the histogram of a magnetic resonance image. *Physics in Medicine and Biology*, **2007**, 52, 1335-48 | 3.8 | 110 |
| 58 | Maximum likelihood estimation of structure parameters from high resolution electron microscopy images. Part I: a theoretical framework. *Ultramicroscopy*, **2005**, 104, 83-106 | 3.1 | 89 |
| 57 | Parameter estimation from magnitude MR images. *International Journal of Imaging Systems and Technology*, **1999**, 10, 109-114 | 2.5 | 82 |
| 56 | Resolution of coherent and incoherent imaging systems reconsidered - Classical criteria and a statistical alternative. *Optics Express*, **2006**, 14, 3830-9 | 3.3 | 56 |
| 55 | Maximum likelihood estimation of structure parameters from high resolution electron microscopy images. Part II: a practical example. *Ultramicroscopy*, **2005**, 104, 107-25 | 3.1 | 52 |
| 54 | Adaptive anisotropic noise filtering for magnitude MR data. *Magnetic Resonance Imaging*, **1999**, 17, 1533-9 | 3.3 | 49 |
| 53 | Parametric Bayesian filters for nonlinear stochastic dynamical systems: a survey. *IEEE Transactions on Cybernetics*, **2013**, 43, 1607-24 | 10.2 | 47 |
| 52 | Model-based two-object resolution from observations having counting statistics. *Ultramicroscopy*, **1999**, 77, 37-48 | 3.1 | 47 |
| 51 | Data distributions in magnetic resonance images: a review. *Physica Medica*, **2014**, 30, 725-41 | 2.7 | 44 |
| 50 | Optimal experimental design of STEM measurement of atom column positions. *Ultramicroscopy*, **2002**, 90, 273-89 | 3.1 | 44 |
| 49 | Estimation of unknown structure parameters from high-resolution (S)TEM images: what are the limits?. *Ultramicroscopy*, **2013**, 134, 34-43 | 3.1 | 43 |
| 48 | Iterative reweighted linear least squares for accurate, fast, and robust estimation of diffusion magnetic resonance parameters. *Magnetic Resonance in Medicine*, **2015**, 73, 2174-84 | 4.4 | 39 |
| 47 | Is atomic resolution transmission electron microscopy able to resolve and refine amorphous structures?. *Ultramicroscopy*, **2003**, 98, 27-42 | 3.1 | 36 |
| 46 | A new non-local maximum likelihood estimation method for Rician noise reduction in magnetic resonance images using the Kolmogorov–Smirnov test. *Signal Processing*, **2014**, 103, 16-23 | 4.4 | 34 |

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|---|---|---|---|
| 45 | Estimation of diffusion properties in crossing fiber bundles. *IEEE Transactions on Medical Imaging*, **2010**, 29, 1504-15 | 11.7 | 30 |
| 44 | Super-resolution reconstruction of diffusion parameters from diffusion-weighted images with different slice orientations. *Magnetic Resonance in Medicine*, **2016**, 75, 181-95 | 4.4 | 29 |
| 43 | Does a monochromator improve the precision in quantitative HRTEM?. *Ultramicroscopy*, **2001**, 89, 275-90 | 3.1 | 28 |
| 42 | Advanced electron crystallography through model-based imaging. *IUCrJ*, **2016**, 3, 71-83 | 4.7 | 27 |
| 41 | Resolution reconsidered Conventional approaches and an alternative. *Advances in Imaging and Electron Physics*, **2001**, 117, 241-360 | 0.2 | 24 |
| 40 | How to optimize the design of a quantitative HREM experiment so as to attain the highest precision. *Journal of Microscopy*, **1999**, 194, 95-104 | 1.9 | 24 |
| 39 | Harmonization of Brain Diffusion MRI: Concepts and Methods. *Frontiers in Neuroscience*, **2020**, 14, 396 | 5.1 | 20 |
| 38 | High-resolution electron microscopy: from imaging toward measuring. *IEEE Transactions on Instrumentation and Measurement*, **2002**, 51, 611-615 | 5.2 | 16 |
| 37 | Diffusion kurtosis imaging with free water elimination: A bayesian estimation approach. *Magnetic Resonance in Medicine*, **2018**, 80, 802-813 | 4.4 | 13 |
| 36 | The role of Poisson s binomial distribution in the analysis of TEM images. *Ultramicroscopy*, **2011**, 111, 1553-6 | 3.1 | 12 |
| 35 | A Unified Maximum Likelihood Framework for Simultaneous Motion and $T_{1}$ Estimation in Quantitative MR $T_{1}$ Mapping. *IEEE Transactions on Medical Imaging*, **2017**, 36, 433-446 | 11.7 | 11 |
| 34 | Introducing measure-by-wire, the systematic use of systems and control theory in transmission electron microscopy. *Ultramicroscopy*, **2011**, 111, 1581-91 | 3.1 | 11 |
| 33 | Implications of the Rician distribution for fMRI generalized likelihood ratio tests. *Magnetic Resonance Imaging*, **2005**, 23, 953-9 | 3.3 | 11 |
| 32 | Ultimate resolution in the presence of coherence. *Ultramicroscopy*, **1995**, 60, 345-348 | 3.1 | 10 |
| 31 | Super-resolution T estimation: Quantitative high resolution T mapping from a set of low resolution T -weighted images with different slice orientations. *Magnetic Resonance in Medicine*, **2017**, 77, 1818-1830 | 4.4 | 9 |
| 30 | Physical limits on atomic resolution. *Microscopy and Microanalysis*, **2004**, 10, 153-7 | 0.5 | 9 |
| 29 | Generalized likelihood ratio tests for complex fMRI data: a simulation study. *IEEE Transactions on Medical Imaging*, **2005**, 24, 604-11 | 11.7 | 8 |
| 28 | Detecting and locating light atoms from high-resolution STEM images: The quest for a single optimal design. *Ultramicroscopy*, **2016**, 170, 128-138 | 3.1 | 8 |

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| 27 | NOVIFAST: A Fast Algorithm for Accurate and Precise VFA MRI Mapping. *IEEE Transactions on Medical Imaging*, **2018**, 37, 2414-2427 | 11.7 | 7 |
| 26 | Supporting measurements or more averages? How to quantify cerebral blood flow most reliably in 5 minutes by arterial spin labeling. *Magnetic Resonance in Medicine*, **2020**, 84, 2523-2536 | 4.4 | 6 |
| 25 | Parametric Reconstruction of Glass Fiber-reinforced Polymer Composites from X-ray Projection Data-A Simulation Study. *Journal of Nondestructive Evaluation*, **2018**, 37, 62 | 2.1 | 6 |
| 24 | Towards STEM control: Modeling framework and development of a sensor for defocus control **2009** , | | 6 |
| 23 | Optimal estimation of T2 maps from magnitude MR images **1998**, 3338, 384 | | 6 |
| 22 | Partial Discreteness: A Novel Prior for Magnetic Resonance Image Reconstruction. *IEEE Transactions on Medical Imaging*, **2017**, 36, 1041-1053 | 11.7 | 5 |
| 21 | The reconstructed residual error: A novel segmentation evaluation measure for reconstructed images in tomography. *Computer Vision and Image Understanding*, **2014**, 126, 28-37 | 4.3 | 5 |
| 20 | Atom-counting in High Resolution Electron Microscopy:TEM or STEM - That$s the question. *Ultramicroscopy*, **2017**, 174, 112-120 | 3.1 | 5 |
| 19 | POEM: A fast defocus estimation method for scanning transmission electron microscopy **2011**, | | 5 |
| 18 | The costs and benefits of estimating T of tissue alongside cerebral blood flow and arterial transit time in pseudo-continuous arterial spin labeling. *NMR in Biomedicine*, **2020**, 33, e4182 | 4.4 | 5 |
| 17 | A nonlocal maximum likelihood estimation method for enhancing magnetic resonance phase maps. *Signal, Image and Video Processing*, **2017**, 11, 913-920 | 1.6 | 3 |
| 16 | Identification of Time Series Models From Segments:Application to Scanning Transmission Electron Microscopy Images. *IEEE Transactions on Instrumentation and Measurement*, **2013**, 62, 3231-3242 | 5.2 | 3 |
| 15 | Towards an adaptive minimum variance control scheme for specimen drift compensation in transmission electron microscopes **2011**, | | 3 |
| 14 | Defocus Polar rOse Estimation Method (POEM): A Fast Defocus Estimation Method for STEM. *IEEE Transactions on Instrumentation and Measurement*, **2012**, 61, 2723-2730 | 5.2 | 3 |
| 13 | A New Nonlocal Maximum Likelihood Estimation Method for Denoising Magnetic Resonance Images. *Lecture Notes in Computer Science*, **2013**, 451-458 | 0.9 | 3 |
| 12 | Joint Maximum Likelihood Estimation of Motion and T1 Parameters from Magnetic Resonance Images in a Super-resolution Framework: a Simulation Study. *Fundamenta Informaticae*, **2020**, 172, 105-128 | 1 | 2 |
| 11 | Towards automatic control of scanning transmission electron microscopes **2009**, | | 2 |
| 10 | Convex saturated particle filter. *Automatica*, **2014**, 50, 2494-2503 | 5.7 | 1 |

# List of Publications

9    Measure-by-Wire (MBW). *Advances in Imaging and Electron Physics*, **2013**, 179, 291-346     0.2    1

8    Simultaneous motion correction and T1 estimation in quantitative T1 mapping: An ML restoration approach **2015**,    1

7    Fast phase diversity wavefront sensing using object independent metrics **2012**,    1

6    Alignment Control of STEM a Ronchigram Based Approach. *Microscopy and Microanalysis*, **2009**, 15, 118-119    0.9   1

5    Model-based super-resolution reconstruction with joint motion estimation for improved quantitative MRI parameter mapping. *Computerized Medical Imaging and Graphics*, **2022**, 102071    7.6   0

4    A comparison between minimum variance control and other online compensation methods for specimen drift in transmission electron microscopy. *Multidimensional Systems and Signal Processing*, **2014**, 25, 247-271    1.8

3    Observer Development for Automatic STEM Closed-Loop Control. *Microscopy and Microanalysis*, **2009**, 15, 1096-1097    0.5

2    Towards Quantitative Structure Determination Through Electron Holographic Methods. *Materials Characterization*, **1999**, 42, 265-281    3.9

1    Improved diffusion parameter estimation by incorporating T relaxation properties into the DKI-FWE model.. *NeuroImage*, **2022**, 119219    7.9