

Andrew James Morgan

ARC Discovery Early Career Researcher

Researcher and lecturer with 14+ years of experience working on theoretical and experimental problems in electron and x-ray imaging, with a recent focus on developing novel imaging modalities for bio-imaging applications. Active researcher with 46 publications, 1568 citations and an h-index of 23*, have conducted more than 20 experiments at world leading facilities, regularly speak at international conferences, workshops and seminar series. Have attracted \$447k in ARC funding. Has a passion for teaching with a strong quantitative and qualitative track record in lecturing a second year undergraduate subject, experience mentoring masters and PhD students and as an executive director at a Melbourne secondary school. *scholar.google.com as of 2023-05-01

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📍 Melbourne, VIC, Australia

🌐 github.com/andyofmelbourne

🌐 [andyofmelbourne.github.io](https://www.andyofmelbourne.github.io)

🔗 bit.ly/42oatsH

Research Experience

ARC Discovery Early Career Researcher

School of Physics, Faculty of Science at University of Melbourne
12/2020 - Present

- Project title: *Single particle imaging: x-ray imaging of individual dynamic biomolecules*
- Funding: \$497,347.00
- Developed constrained, low dimensional real-space models for sample heterogeneity to improve signal to noise in single particle imaging.

Research Fellow in Biomolecular Imaging

School of Physics, Faculty of Science at University of Melbourne
5/2018 - 12/2020

- With Prof. Harry Quiney at the Centre of Excellence for Advanced Molecular Imaging.
- Examined low dose regimes for imaging biomolecules and developed a theoretical basis for the limits of such approaches.
- Continued to advance high energy x-ray lens design and fabrication techniques as well as develop a form of speckle-tracking that capitalises on such high numerical aperture lenses.

Postdoctoral Researcher

Centre for Free-Electron Laser Science, Deutsches Elektronen-Synchrotron
11/2013 - 03/2018

- With Prof. Dr. Dr. Henry Chapman FRS in the Coherent Imaging Division.
- Performed theoretical and computational work on inverse problems in x-ray imaging relating to: serial crystallography, transmission microscopy, single particle imaging, high numerical aperture x-ray lenses, ptychography and velocity map imaging of molecular fragments at synchrotron and free-electron laser facilities.
- Planned and conducted numerous experiments at facilities including: the LCLS, EuXFEL, PETRA-III, FLASH, NSLS-II, SACLA.
- Developed open source software for real-time and offline analysis of data sourced from high repetition rate x-ray facilities.

Teaching Associate

School of Physics and Astronomy at Monash University—Clayton
8-11/2018

- Worked on the weak phase approximation in scanning transmission microscopy with segmented detectors (my role was closer to a casual research assistant).

Doctoral Researcher

School of Physics, Faculty of Science at University of Melbourne
2008 - 2013

- Examined the role of spatial and temporal incoherence in scanning transmission electron microscopy.
- Investigated the conditions under which phase retrieval could be successful in this imaging modality.
- Conducted theoretical and experimental work employing direct methods for phasing electron diffraction related to holography and ptychography.

Teaching Experience

Casual Lecturer

School of Physics, Faculty of Science at University of Melbourne
02/2020 - Present (4 teaching semesters)

- Lecturer for the first 4 weeks of the second year subject: *EVSC20006 Energy and the Environment*
- Subject matter includes: introductory level thermal physics, engine cycles, nuclear physics, band-gap analysis of photovoltaic cells.
- Managed the transitions from on-site course delivery to remote learning followed by blended synchronous mode before returning to on-site delivery.

PhD Student Mentor

Centre for Free-Electron Laser Science and University of Melbourne
2014 - Present

- Mentored many masters and PhD students in an informal capacity as part of a large research group (CFEL).
- Supervised Dr. Markus Metz, who was visiting from CFEL, for an 8 week stay at UoM resulting in a publication where I was acknowledged as a corresponding author.

Summer Student Supervisor

School of Physics, Faculty of Science at University of Melbourne
2021, 2022

- Supervised two undergraduate students for the Laby Research Scholarship summer program.

Tutor and Demonstrator

School of Physics, Faculty of Science at University of Melbourne
2008 - 2013

- Demonstrator for year 1 and 2 physics laboratory classes.
- Tutor for year 1 *Physics 1* classes.
- Resident tutor at Queen's College for Physics 1 classes.

Education

PhD in Theoretical Condensed Matter Physics

School of Physics, Faculty of Science at University of Melbourne
03/2009 - 08/2013

- Thesis title: *A generalised holographic approach to coherent diffractive imaging*
- With Prof. Les Allen.

Bachelor of Science (Degree with Honours)

University of Melbourne
2004 - 2008

- With majors in Mathematics and Statistics, and Physics.
- Honours - H1
- Thesis title: *Temporal and spatial incoherence in atomic resolution scanning transmission electron microscopy*

Honours, Awards and Grants

- Recipient of the Discovery Early Career Researcher Award (2020).
- Recipient of the 2018 Microscopy Today Innovation Award.
- PSRS Award for best scientific publication (2018).
- Recipient of the David Hay Postgraduate Writing-Up Award (2013).
- Awarded the University of Melbourne Overseas Research Experience Scholarship.
- Recipient of the Australian Postgraduate Award (2006).

Education Administration

Executive Director

Alia College, Hawthorn East VIC
2015 - Present

- Develop goals and implement strategic plans for the school.
- Encourage an open, caring and productive culture in the school.

References

Prof. Dr. Dr. H. C. **Henry Chapman** FRS (Division Director)
Center for Free-Electron Laser Science, DESY / Universität Hamburg
Notkestrasse 85 22607 Hamburg, Germany
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Professor **Leslie J. Allen** (Former head of the TCMP Group)
The University of Melbourne, School of Physics
Parkville 3010, Australia.
Phone: +61 3 8344 7402 Email: lja@unimelb.edu.au

Activity & Other Outputs

Software:

Co-founder of **OnDA** an open source software package for the real-time analysis of large data rate diffraction experiments, which has been regularly used in the field (equal first author in [30]).

stash.desy.de/projects/ONDA

Speckle-tracking: a sophisticated GUI and analysis package for the validation and processing of ptychographic, x-ray in-line, near-field holograms.

github.com/andyofmelbourne/speckle-tracking

Single Particle Imaging Initiative:

Active member of a large international collaboration aimed at enabling atomic resolution, conformationally resolved XFEL imaging of small biomolecules. Lead author in a recent project to curate and publish in the CXIDB all experimental data collected to date by this initiative [12].

Conferences:

Regularly attend and present at conferences (IUCr, XRM, AIP), workshops and the IOP seminar series. Invited speaker at: 15'th International Conference of X-ray Microscopy (most highly rated talk on whova), 5th Ringberg Workshop on Structural Biology.

Service:

Actively review for journals in my field ~3-5 per year. ARC reviewer for two Discovery and one Linkage project.

Participate in careers events, such as the year 10 work experience program at the University of Melbourne and similar programs at Aila College.

Publications

*See following pages for a full list of publications

Many of my publications relate to large international collaborations for which my input is typically one or more of project and experiment design, online and offline analysis and in the drafting of articles.

- Publications in peer reviewed journals: 46
- h-index: 23
- Citations: 1568
- Article [35] on highly focusing x-ray lenses has been highly cited (106) attracted two awards and was published in 8 online news articles and 1 scientific blog.
- Article [15] on diffuse scattering x-ray crystallography to overcome the information limit imposed by Bragg gated crystal diffraction was featured on the cover of the Acta. Cryst. A (2019) issue.
- Corresponding author for 2 articles [5,12].
- In [40] we presented a direct phase retrieval method to obtain a sub-Angstrom resolution map of a CeO₂ nano crystal.

Dr. **Saša Bajt** (Group Leader ML)
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Professor **Harry Quiney** (Head of School)
The University of Melbourne, School of Physics
Parkville 3010, Australia.
Phone: +61 3 8344 5088 Email: quiney@unimelb.edu.au

Notes

- Underline indicates equal first author.
- Star* indicates corresponding author.
- Impact Factors from Web of Science as of 2019-03-08.
- Citations from scholar.google.com as of 2023-05-09.
- 46 refereed journal articles in total.
- h index is 23 (scholar.google.com as of 2023-05-09).
- 1571 citations in total (scholar.google.com as of 2023-05-09).

Refereed journal articles

1. J. L. Dresselhaus, H. Fleckenstein, M. Domaracký, M. Prasciolu, N. Ivanov, J. Carnis, K. T. Murray, **A. J. Morgan**, H. N. Chapman, S. Bajt
Precise wavefront characterization of X-ray optical elements using a laboratory source
Review of Scientific Instruments (submitted) (2022)
Impact Factor: **1.78** Citations: **0**
2. D. J. Wells, P. Berntsen, E. Balaur, C. M. Kewish, P. Adams, A. Aquila, J. Binns, S. Boutet, H. Broomhall, C. Caleman, A. Christofferson, C. E. Conn, C. Dahlgqvist, L. Flueckiger, F. G. Roque, T. L. Greaves, M. Hejazian, M. Hunter, M. H. Jazi, H. O. Jönsson, S. K. Pathirannahalage, R. A. Kirian, A. Kozlov, R. P. Kurta, H. Marman, D. Mendez, **A. J. Morgan**, K. Nugent, D. Oberthuer, H. Quiney, J. Reinhardt, S. Saha, J. A. Sellberg, R. Sierra, M. Wiedorn, B. Abbey, A. V. Martin, C. Darmanin
Observations of phase changes in monoolein during high viscous injection
Journal of Synchrotron Radiation (2022)
Impact Factor: **3.232** Citations: **0**
3. M. Prasciolu, K. T. Murray, N. Ivanov, H. Fleckenstein, M. Domaracký, L. Gelisio, F. Trost, K. Ayer, D. Krebs, S. Aplin, S. Awel, U. Boesenberg, A. Barty, A. D. Estillore, M. Fuchs, Y. Gevorkov, J. Hallmann, C. Kim, J. Knoška, J. Küpper, C. Li, W. Lu, V. Mariani, **A. J. Morgan**, J. Möller, A. Madsen, D. Oberthür, G. E. P. Murillo, D. A. Reis, M. Scholz, B. Šarler, P. Villanueva-Perez, O. Yefanov, K. A. Zielinski, A. Zozulya, H. N. Chapman, S. Bajt
On the use of multilayer Laue lenses with X-ray Free Electron Lasers
ArXiv (2022)
Impact Factor: **N/A** Citations: **0**
4. Y. Zhuang, S. Awel, A. Barty, R. Bean, J. Bielecki, M. Bergemann, B. J. Daurer, T. Ekeberg, A. D. Estillore, H. Fangohr, K. Giewekemeyer, M. S. Hunter, M. Karnevskiy, R. A. Kirian, H. Kirkwood, Y. Kim, J. Koliyadu, H. Lange, R. Letrun, J. Lübke, A. Mall, T. Michelat, **A. J. Morgan**, N. Roth, A. K. Samanta, T. Sato, Z. Shen, M. Sikorski, F. Schulz, J. C. Spence, P. Vagovic, T. Wollweber, L. Worbs, P. L. Xavier, O. Yefanov, F. R. Maia, D. A. Horke, J. Küpper, N. D. Loh, A. P. Mancuso, H. N. Chapman, K. Ayer
Unsupervised learning approaches to characterizing heterogeneous samples using X-ray single-particle imaging
IUCrJ (2022)
Impact Factor: **6.544** Citations: **5**
5. M. Metz, R. D. Arnal, W. Brehm, H. N. Chapman, **A. J. Morgan***, R. P. Millane
Macromolecular phasing using diffraction from multiple crystal forms

Acta Crystallographica Section A: Foundations and Advances (2021)

Impact Factor: **7.93** Citations: **2**

6. K. Ayyer, P. L. Xavier, J. Bielecki, Z. Shen, B. J. Daurer, A. K. Samanta, S. Awel, R. Bean, A. Barty, M. Bergemann, T. Ekeberg, A. D. Estillore, H. Fangohr, K. Giewekemeyer, M. S. Hunter, M. Karneviskiy, R. A. Kirian, H. Kirkwood, Y. Kim, J. Koliyadu, H. Lange, R. Letrun, J. Lübke, T. Michelat, **A. J. Morgan**, N. Roth, T. Sato, M. Sikorski, F. Schulz, J. C. Spence, P. Vagovic, T. Wollweber, L. Worbs, O. Yefanov, Y. Zhuang, F. R. Maia, D. A. Horke, J. Küpper, N. D. Loh, A. P. Mancuso, H. N. Chapman
3D diffractive imaging of nanoparticle ensembles using an x-ray laser
Optica (2021)
Impact Factor: **9.778** Citations: **44**
7. A. Echelmeier, J. C. Villarreal, M. Messerschmidt, D. Kim, J. D. Coe, D. Thifault, S. Botha, A. Egatz-Gomez, S. Gandhi, G. Brehm, C. E. Conrad, D. T. Hansen, C. Madsen, S. Bajt, J. D. Meza-Aguilar, D. Oberthür, M. O. Wiedorn, H. Fleckenstein, D. Mendez, J. Knoška, J. M. Martin-Garcia, H. Hu, S. Lisova, A. Allahgholi, Y. Gevorkov, K. Ayyer, S. Aplin, H. M. Ginn, H. Graafsma, **A. J. Morgan**, D. Greiffenberg, A. Klujev, T. Laurus, J. Poehlsen, U. Trunk, D. Mezza, B. Schmidt, M. Kuhn, R. Fromme, J. Sztuk-Dambietz, N. Raab, S. Hauf, A. Silenzi, T. Michelat, C. Xu, C. Danilevski, A. Parenti, L. Mekinda, B. Weinhausen, G. Mills, P. Vagovic, Y. Kim, H. Kirkwood, R. Bean, J. Bielecki, S. Stern, K. Giewekemeyer, A. R. Round, J. Schulz, K. Dörner, T. D. Grant, V. Mariani, A. Barty, A. P. Mancuso, U. Weierstall, J. C. Spence, H. N. Chapman, N. Zatsepin, P. Fromme, R. A. Kirian, A. Ros
Segmented flow generator for serial crystallography at the European X-ray free electron laser
Nature Communications (2020)
Impact Factor: **12.353** Citations: **24**
8. T. Kierspel, **A. J. Morgan**, J. Wiese, T. Mullins, A. Aquila, A. Barty, R. Bean, R. Boll, S. Boutet, P. Bucksbaum, H. N. Chapman, L. Christensen, A. Fry, M. Hunter, J. E. Koglin, M. Liang, V. Mariani, A. Natan, J. Robinson, D. Rolles, A. Rudenko, K. Schnorr, H. Stapelfeldt, S. Stern, J. Thøgersen, C. H. Yoon, F. Wang, J. Küpper
X-ray diffractive imaging of controlled gas-phase molecules: Toward imaging of dynamics in the molecular frame
The Journal of Chemical Physics (2020)
Impact Factor: **2.991** Citations: **26**
9. **A. J. Morgan**, K. T. Murray, M. Prasciolu, H. Fleckenstein, O. Yefanov, P. Villanueva-Perez, V. Mariani, M. Domaracky, M. Kuhn, S. Aplin, I. Mohacsi, M. Messerschmidt, K. Stachnik, Y. Du, A. Burkhart, A. Meents, E. Nazaretski, H. Yan, X. Huang, Y. S. Chu, H. N. Chapman, S. Bajt
Ptychographic X-ray speckle tracking with multi-layer Laue lens systems
Journal of Applied Crystallography (2020)
Impact Factor: **3.422** Citations: **12**
10. **A. J. Morgan**, H. M. Quiney, S. Bajt, H. N. Chapman
Ptychographic X-ray speckle tracking
Journal of Applied Crystallography (2020)
Impact Factor: **3.422** Citations: **11**
11. **A. J. Morgan**, K. T. Murray, H. M. Quiney, S. Bajt, H. N. Chapman
speckle-tracking: a software suite for ptychographic X-ray speckle tracking
Journal of Applied Crystallography (2020)
Impact Factor: **3.422** Citations: **6**
12. H. Li, R. Nazari, B. Abbey, R. Alvarez, A. Aquila, K. Ayyer, A. Barty, P. Berntsen, J. Bielecki,

A. Pietrini, M. Bucher, G. Carini, H. N. Chapman, A. Contreras, B. J. Daurer, H. DeMirci, L. Flückiger, M. Frank, J. Hajdu, M. F. Hantke, B. G. Hogue, A. Hosseinizadeh, M. S. Hunter, H. O. Jönsson, R. A. Kirian, R. P. Kurta, D. Loh, F. R. Maia, A. P. Mancuso, **A. J. Morgan***, M. McFadden, K. Muehlig, A. Munke, H. K. N. Reddy, C. Nettelblad, A. Ourmazd, M. Rose, P. Schwander, M. M. Seibert, J. A. Sellberg, R. G. Sierra, Z. Sun, M. Svenda, I. A. Vartanyants, P. Walter, D. Westphal, G. Williams, P. L. Xavier, C. H. Yoon, S. Zaare

Diffraction data from aerosolized Coliphage PR772 virus particles imaged with the Linac Coherent Light Source

Scientific Data (2020)

Impact Factor: **5.541** Citations: **4**

13. K. Ayer, **A. J. Morgan**, A. Aquila, H. DeMirci, B. G. Hogue, R. A. Kirian, P. L. Xavier, C. H. Yoon, H. N. Chapman, A. Barty

Low-signal limit of X-ray single particle diffractive imaging

Optics Express (2019)

Impact Factor: **3.356** Citations: **34**

14. K. T. Murray, A. F. Pedersen, I. Mohacsi, C. Detlefs, **A. J. Morgan**, M. Prasciolu, C. Yildirim, H. Simons, A. C. Jakobsen, H. N. Chapman, H. F. Poulsen, S. Bajt

Multilayer Laue lenses at high X-ray energies: performance and applications

Optics Express (2019)

Impact Factor: **3.356** Citations: **32**

15. **A. J. Morgan**, K. Ayer, A. Barty, J. P. Chen, T. Ekeberg, D. Oberthuer, T. A. White, O. Yefanov, H. N. Chapman

Ab initio phasing of the diffraction of crystals with translational disorder

Acta Crystallographica Section A: Foundations and Advances (2019)

Impact Factor: **7.93** Citations: **16**

- Featured on the cover of **Acta. Cryst. A** (1 January 2019 issue).

16. T. Gorkhover, A. Ulmer, K. Ferguson, M. Bucher, F. R. Maia, J. Bielecki, T. Ekeberg, M. F. Hantke, B. J. Daurer, C. Nettelblad, J. Andreasson, A. Barty, P. Bruza, S. Carron, D. Hasse, J. Krzywinski, D. S. Larsson, **A. J. Morgan**, K. Mühlig, M. Müller, K. Okamoto, A. Pietrini, D. Rupp, M. Sauppe, G. V. D. Schot, M. Seibert, J. A. Sellberg, M. Svenda, M. Swiggers, N. Timneanu, D. Westphal, G. Williams, A. Zani, H. N. Chapman, G. Faigel, T. Möller, J. Hajdu, C. Bostedt

Femtosecond X-ray Fourier holography imaging of free-flying nanoparticles

Nature Photonics (2018)

Impact Factor: **32.521** Citations: **58**

17. I. V. Lundholm, J. A. Sellberg, T. Ekeberg, M. F. Hantke, K. Okamoto, G. v. d. Schot, J. Andreasson, A. Barty, J. Bielecki, P. Bruza, M. Bucher, S. Carron, B. J. Daurer, K. Ferguson, D. Hasse, J. Krzywinski, D. S. Larsson, **A. J. Morgan**, K. Mühlig, M. Müller, C. Nettelblad, A. Pietrini, H. K. Reddy, D. Rupp, M. Sauppe, M. Seibert, M. Svenda, M. Swiggers, N. Timneanu, A. Ulmer, D. Westphal, G. Williams, A. Zani, G. Faigel, H. N. Chapman, T. Möller, C. Bostedt, J. Hajdu, T. Gorkhover, F. R. Maia

Considerations for three-dimensional image reconstruction from experimental data in coherent diffractive imaging

IUCrJ (2018)

Impact Factor: **6.544** Citations: **45**

18. M. O. Wiedorn, S. Awel, **A. J. Morgan**, K. Ayer, Y. Gevorgov, H. Fleckenstein, N. Roth, L. Adriano, R. Bean, K. R. Beyerlein, J. Chen, J. Coe, F. Cruz-Mazo, T. Ekeberg, R. Graceffa, M. Heymann, D. A. Horke, J. Knoška, V. Mariani, R. Nazari, D. Oberthür, A. K. Samanta, R. G.

Sierra, C. A. Stan, O. Yefanov, D. Rompotis, J. Correa, B. Erk, R. Treusch, J. Schulz, B. G. Hogue, A. M. Gañán-Calvo, P. Fromme, J. Küpper, A. V. Rode, S. Bajt, R. A. Kirian, H. N. Chapman

Rapid sample delivery for megahertz serial crystallography at X-ray FELs

IUCrJ (2018)

Impact Factor: **6.544** Citations: **63**

19. M. Rose, S. Bobkov, K. Ayyer, R. P. Kurta, D. Dzhigaev, Y. Y. Kim, **A. J. Morgan**, C. H. Yoon, D. Westphal, J. Bielecki, J. A. Sellberg, G. Williams, F. R. Maia, O. M. Yefanov, V. Ilyin, A. P. Mancuso, H. N. Chapman, B. G. Hogue, A. Aquila, A. Barty, I. A. Vartanyants

Single-particle imaging without symmetry constraints at an X-ray free-electron laser

IUCrJ (2018)

Impact Factor: **6.544** Citations: **71**

20. S. Bajt, M. Prasciolu, H. Fleckenstein, M. Domaracký, H. N. Chapman, **A. J. Morgan**, O. Yefanov, M. Messerschmidt, Y. Du, K. T. Murray, V. Mariani, M. Kuhn, S. Aplin, K. Pande, P. Villanueva-Perez, K. Stachnik, J. P. Chen, A. Andrejczuk, A. Meents, A. Burkhardt, D. Pennicard, X. Huang, H. Yan, E. Nazaretski, Y. S. Chu, C. E. Hamm

X-ray focusing with efficient high-NA multilayer Laue lenses

Light: Science & Applications (2018)

Impact Factor: **13.625** Citations: **103**

21. S. Awel, R. A. Kirian, M. O. Wiedorn, K. R. Beyerlein, N. Roth, D. A. Horke, D. Oberthür, J. Knoska, V. Mariani, **A. J. Morgan**, L. Adriano, A. Tolstikova, P. L. Xavier, O. Yefanov, A. Aquila, A. Barty, S. Roy-Chowdhury, M. S. Hunter, D. James, J. S. Robinson, U. Weierstall, A. V. Rode, S. Bajt, J. Küpper, H. N. Chapman

Femtosecond X-ray diffraction from an aerosolized beam of protein nanocrystals

Journal of Applied Crystallography (2018)

Impact Factor: **3.422** Citations: **25**

22. M. O. Wiedorn, D. Oberthür, R. Bean, R. Schubert, N. Werner, B. Abbey, M. Aepfelbacher, L. Adriano, A. Allahgholi, N. Al-Qudami, J. Andreasson, S. Aplin, S. Awel, K. Ayyer, S. Bajt, I. Barák, S. Bari, J. Bielecki, S. Botha, D. Boukhelef, W. Brehm, S. Brockhauser, I. Cheviakov, M. A. Coleman, F. Cruz-Mazo, C. Danilevski, C. Darmanin, R. B. Doak, M. Domaracký, K. Dörner, Y. Du, H. Fangohr, H. Fleckenstein, M. Frank, P. Fromme, A. M. Gañán-Calvo, Y. Gevorkov, K. Giewekemeyer, H. M. Ginn, H. Graafsma, R. Graceffa, D. Greiffenberg, L. Gumprecht, P. Göttlicher, J. Hajdu, S. Hauf, M. Heymann, S. Holmes, D. A. Horke, M. S. Hunter, S. Imlau, A. Kaukher, Y. Kim, A. Klyuev, J. Knoška, B. Kobe, M. Kuhn, C. Kupitz, J. Küpper, J. M. Lahey-Rudolph, T. Laurus, K. L. Cong, R. Letrun, P. L. Xavier, L. Maia, F. R. Maia, V. Mariani, M. Messerschmidt, M. Metz, D. Mezza, T. Michelat, G. Mills, D. C. Monteiro, **A. J. Morgan**, K. Mühlig, A. Munke, A. Münnich, J. Nette, K. A. Nugent, T. Nuguid, A. M. Orville, S. Pandey, G. Pena, P. Villanueva-Perez, J. Poehlsen, G. Previtali, L. Redecke, W. M. Riekehr, H. Rohde, A. Round, T. Safenreiter, I. Sarrou, T. Sato, M. Schmidt, B. Schmitt, R. Schönherr, J. Schulz, J. A. Sellberg, M. M. Seibert, C. Seuring, M. L. Shelby, R. L. Shoeman, M. Sikorski, A. Silenzi, C. A. Stan, X. Shi, S. Stern, J. Sztuk-Dambietz, J. Szuba, A. Tolstikova, M. Trebbin, U. Trunk, P. Vagovic, T. Ve, B. Weinhausen, T. A. White, K. Wrona, C. Xu, O. Yefanov, N. Zatsepin, J. Zhang, M. Perbandt, A. P. Mancuso, C. Betzel, H. Chapman, A. Barty

Megahertz serial crystallography

Nature Communications (2018)

Impact Factor: **12.353** Citations: **167**

- First user experiment at the European XFEL.
- Featured in 18 online news articles and 5 scientific blogs.

23. H. N. Chapman, O. M. Yefanov, K. Ayyer, T. A. White, A. Barty, **A. J. Morgan**, V. Mariani, D. Oberthuer, K. Pande
Continuous diffraction of molecules and disordered molecular crystals
Journal of Applied Crystallography (2017)
Impact Factor: **3.422** Citations: **24**
24. C. Kupitz, J. L. O. Jr, M. Holl, L. Tremblay, K. Pande, S. Pandey, D. Oberthür, M. Hunter, M. Liang, A. Aquila, J. Tenboer, G. Calvey, A. Katz, Y. Chen, M. O. Wiedorn, J. Knoska, A. Meents, V. Majriani, T. Norwood, I. Poudyal, T. Grant, M. D. Miller, W. Xu, A. Tolstikova, **A. J. Morgan**, M. Metz, J. M. Martin-Garcia, J. D. Zook, S. Roy-Chowdhury, J. Coe, N. Nagaratnam, D. Meza, R. Fromme, S. Basu, M. Frank, T. White, A. Barty, S. Bajt, O. Yefanov, H. N. Chapman, N. Zatsepin, G. Nelson, U. Weierstall, J. Spence, P. Schwander, L. Pollack, P. Fromme, A. Ourmazd, G. N. P. Jr, M. Schmidt
Structural enzymology using X-ray free electron lasers
Structural Dynamics (2017)
Impact Factor: **3.969** Citations: **108**
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Additional research outputs

55. Software: OnDA
V. Mariani, **A. J. Morgan**, C. H. Yoon
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56. Software: CsPadMaskMaker
A. J. Morgan
<https://github.com/ondateam/CsPadMaskMaker>

57. Software: speckle-tracking

A. J. Morgan

<https://github.com/andyofmelbourne/speckle-tracking>