

# IMAN AGANJ

Assistant Professor of Radiology, **Harvard Medical School**

Associate Investigator, Martinos Center for Biomedical Imaging, **Massachusetts General Hospital**

[iaganj@mgh.harvard.edu](mailto:iaganj@mgh.harvard.edu)

<http://iman.mgh.harvard.edu>

## Education

- 09/2005 – 12/2010 **Ph.D.** in *Electrical Engineering* (minor in *Computer Science*), **University of Minnesota**, Minneapolis, MN, USA. **M.S.** received in 2008. Research Assistant of Prof. [Guillermo Sapiro](#).
- 04/2003 – 06/2005 **B.S.**, *Computer Science*, **École Polytechnique**, Paris, France.
- 09/2001 – 02/2003 *Electrical Engineering*, **Sharif University of Technology**, Tehran, Iran.
- 06/2000 – 06/2001 *Physics*, preparation program for International Physics Olympiad, **Young Scholars Club**, Tehran, Iran.

## Work Experience

- 04/2016 – present Assistant Professor of Radiology at **Harvard Medical School**, Boston, MA, USA.
- 12/2013 – present Associate Investigator at the Athinoula A. Martinos Center for Biomedical Imaging, **Massachusetts General Hospital**, Boston, MA, USA.
- 09/2017 – 10/2020 Research Affiliate at the Computer Science and Artificial Intelligence Laboratory, **Massachusetts Institute of Technology**, Cambridge, MA, USA.
- 12/2013 – 03/2016 Instructor (junior faculty) in Radiology at **Harvard Medical School**, Boston, MA, USA.
- 02/2011 – 12/2013 Postdoctoral Research Fellow at the **Massachusetts General Hospital** (Athinoula A. Martinos Center for Biomedical Imaging, with Prof. [Bruce Fischl](#)), Radiology Department, **Harvard Medical School**, and Research Affiliate at the Department of Electrical Engineering and Computer Science (LIDS, with Prof. [Devavrat Shah](#)), **Massachusetts Institute of Technology**, Boston, MA, USA.
- 09/2005 – 12/2010 Research Assistant at the Image Sciences Laboratory of Prof. [Guillermo Sapiro](#), Department of Electrical and Computer Engineering, **University of Minnesota**, Minneapolis, MN, USA.
- Summer 2010 Internship at the Center for Magnetic Resonance Research (with Prof. [Noam Harel](#)), **University of Minnesota**, Minneapolis, MN, USA.
- July 2009 Visiting the Odysée Project Team (Prof. [Rachid Deriche](#)), Institut National de Recherche en Informatique et en Automatique (**INRIA**), Sophia Antipolis, France.
- Summer 2008 Visiting Centre d'Enregistrement et de Recherche en Technologies de l'Information et Systèmes (CERTIS, Prof. [Renaud Kériveren](#)), **École Nationale des Ponts et Chaussées**, Paris, France.
- July 2007 Visiting the Laboratory of Neuro Imaging (Prof. [Paul Thompson](#)), **University of California – Los Angeles**, CA, USA.
- Summer 2006 Internship at the Laboratory of Cell Biology (with Prof. [Sriram Subramaniam](#)), National Cancer Institute, **National Institutes of Health**, Bethesda, MD, USA.
- Spring 2005 Internship at the Image Sciences Laboratory of Prof. [Guillermo Sapiro](#), Department of Electrical and Computer Engineering, **University of Minnesota**, Minneapolis, MN, USA.
- 07/2001 – 06/2002 Teaching physics in the preparation program for the International Physics Olympiad, **Young Scholars Club**, Tehran, Iran.

**Languages:** Fluent: *English, French*; Native: *Persian*; Intermediate: *Spanish, Arabic*.

## Awards and Honors

- 2023 Connors BWH-MGB Collaborative IGNITE Award (\$41,667 direct + 20% IDC), **BWH Connors Center** for Women’s Health and Gender Biology & **MGB Office of Chief Academic Officer**.
- 2022 Magnetic Resonance Imaging Biomarkers Program Award (\$717,360 direct + 15% IDC, over 3 years), **Michael J. Fox Foundation** for Parkinson’s Research.
- 2022 **Oracle for Research** Project Award (\$26,000 of cloud credits).
- 2021 Multi-Year Funded Research Project (RF1) Grant (\$1,818,667 direct + 67% IDC, over 5 years), National Institute on Aging, **National Institutes of Health**.
- 2020 High Priority Short-Term Project (R56) Award (\$351,115 direct + 68% IDC, for a year), National Institute on Aging, **National Institutes of Health**.
- 2020 Microsoft Azure Credit Grant (\$20,000 of Azure credits), **Harvard Data Science Initiative**.
- 2020 **Google Cloud Platform** Research Credits (\$5,000 of GCP credits).
- 2018 **Amazon Web Services** Cloud Credits for Research (\$21,600 of AWS credits).
- 2016 GPU Grant (hardware gift), **NVIDIA Corporation**.
- 2016 Alzheimer’s Disease Research Award (\$300,000 direct, over 3 years), **BrightFocus Foundation**.
- 2016 **Microsoft Azure** Research Award (\$20,000 of Azure credits).
- 2015 Mentored Research Scientist Development (K01) Award (\$738,500 direct + 8% IDC, over 5 years), National Institute of Diabetes and Digestive and Kidney Diseases, **National Institutes of Health**.
- 2015 **JDRF** Career Development Award (\$681,814 direct + 8% IDC, over 5 years). This award was declined due to overlap with the above NIH K01 grant.
- 2014 Neurodegenerative Diseases Pilot Study Grant (\$40,000 direct + IDC, for one year), **Massachusetts Alzheimer’s Disease Research Center**.
- 2014 Educational Stipend, Joint Annual Meeting **ISMRM-ESMRMB**, Milan, Italy.
- 2013 First-author MRM’10 article was recognized at the **International Society for Magnetic Resonance in Medicine (ISMRM)** Award Ceremony by President Thomas Grist as one of the Top 5 Cited *Magnetic Resonance in Medicine* Papers from 2010.
- 2001 Silver medal, **International Physics Olympiad**, Antalya, Turkey.
- 2000 Gold medal, **National Physics Olympiad**, Tehran, Iran.

## Editorial Activity

- 2022 – present Associate Editor, *Frontiers in Neuroimaging*
- 2021 Area Chair (Meta Reviewer), *MICCAI*
- 2019 – present Editorial Board Member, *Scientific Reports*
- 2013 – present Editorial Board Member, *AIMS – Medical Science*
- Peer review record: <https://www.webofscience.com/wos/author/record/1760600>

## Publications

**Google Scholar:** [https://scholar.google.com/citations?user=rT3JD\\_cAAAAJ&pagesize=100](https://scholar.google.com/citations?user=rT3JD_cAAAAJ&pagesize=100)

## Journal Papers

Z. Zhou, B. Fischl, and **I. Aganj**, “Harmonization of structural brain connectivity through distribution matching,” *bioRxiv*, 2024.09.05.611489, 2024.

S. Qin, F. Xing, J. Cho, J. Park, X. Liu, A. Rouhollahi, E. J. Bou Farhat, H. Javadikasgari, A. Sabe, F. R. Nezami, J. Woo,\* and **I. Aganj**,\* “Refined myocardium segmentation from CT using a hybrid-fusion transformer,” *bioRxiv*, 2024.09.27.615510, 2024. (\* co-senior authors)

- I. Aganj**, J. Mora, B. Fischl, and J. C. Augustinack, “Automatic geometry-based estimation of the locus coeruleus region on T1-weighted magnetic resonance images,” *Frontiers in Neuroscience*, vol. 18, Article no. 1375530, 2024.
- I. Aganj**, J. Mora, A. Frau-Pascual, and B. Fischl, “Exploratory correlation of the human structural connectome with non-MRI variables in Alzheimer’s disease,” *Alzheimer’s & Dementia: Diagnosis, Assessment & Disease Monitoring*, vol. 15, no. 4, pp. e12511, 2023.
- I. Aganj** and B. Fischl, “Multi-atlas image soft-segmentation via computation of the expected label value,” *IEEE Transactions on Medical Imaging*, vol. 40, no. 6, pp. 1702–1710, 2021.
- A. Frau-Pascual, J. Augustinack, D. Varadarajan, A. Yendiki, D. H. Salat, B. Fischl, and **I. Aganj**, “Conductance-based structural brain connectivity in aging and dementia,” *Brain Connectivity*, vol. 11, no. 7, pp. 566–583, 2021.
- S. Koley, P. K. Dutta, and **I. Aganj**, “Radius-optimized efficient template matching for lesion detection from brain images,” *Scientific Reports*, vol. 11, Article no. 11586, 2021.
- C. Liu, W. Ammon, V. Siless, M. Fogarty, R. Wang, A. Atzeni, **I. Aganj**, J. E. Iglesias, L. Zollei, B. Fischl, J. D. Schmahmann, and H. Wang, “Quantification of volumetric morphometry and optical property in the cortex of human cerebellum at micrometer resolution,” *NeuroImage*, vol. 244, Article no. 118627, 2021.
- D. Abramian, M. Larsson, A. Eklund, **I. Aganj**, C.-F. Westin, and H. Behjat, “Diffusion-informed spatial smoothing of fMRI data in white matter using spectral graph filters,” *NeuroImage*, vol. 237, Article no. 118095, 2021.
- M. A. Morales, D. Izquierdo-Garcia, **I. Aganj**, J. Kalpathy-Cramer, B. R. Rosen, and C. Catana, “Implementation and validation of a three-dimensional cardiac motion estimation network,” *Radiology: Artificial Intelligence*, vol. 1, no. 4, 2019.
- A. Frau-Pascual, M. Fogarty, B. Fischl, A. Yendiki, and **I. Aganj**, “Quantification of structural brain connectivity via a conductance model,” *NeuroImage*, vol. 189, pp. 485–496, 2019.
- I. Aganj**, “Automatic verification of the gradient table in diffusion-weighted MRI based on fiber continuity,” *Scientific Reports*, vol. 8, Article no. 16541, 2018.
- I. Aganj**, M. G. Harisinghani, R. Weissleder, and B. Fischl, “Unsupervised medical image segmentation based on the local center of mass,” *Scientific Reports*, vol. 8, Article no. 13012, 2018.
- W. J. Lee, C. E. Han, **I. Aganj**, S. W. Seo, and J.-K. Seong, “Distinct patterns of rich club organization in Alzheimer’s disease and subcortical vascular dementia: a white matter network study,” *Journal of Alzheimer’s Disease*, vol. 63, no. 3, pp. 977–987, 2018.
- H. Wang, C. Magnain, R. Wang, J. Dubb, A. Varjabedian, L. S. Tirrell, A. Stevens, J. C. Augustinack, E. Konukoglu, **I. Aganj**, M. P. Frosch, J. D. Schmahmann, B. Fischl, and D. A. Boas, “as-PSOCT: volumetric microscopic imaging of human brain architecture and connectivity,” *NeuroImage*, vol. 165, pp. 56–68, 2018.
- I. Aganj** and B. Fischl, “Multimodal image registration through simultaneous segmentation,” *IEEE Signal Processing Letters*, vol. 24, no. 11, pp. 1661–1665, 2017.
- T. Tong, **I. Aganj**, T. Ge, J. R. Polimeni, and B. Fischl, “Functional density and edge maps: characterizing functional architecture in individuals and improving cross-subject registration,” *NeuroImage*, vol. 158, pp. 346–355, 2017.
- I. Aganj**, J. E. Iglesias, M. Reuter, M. R. Sabuncu, and B. Fischl, “Mid-space-independent deformable image registration,” *NeuroImage*, vol. 152, pp. 158–170, 2017.
- A. Gholipour, O. Afacan, **I. Aganj**, B. Scherrer, S. P. Prabhu, M. Sahin, and S. K. Warfield, “Super-resolution reconstruction in frequency, image, and wavelet domains to reduce through-plane partial voluming in MRI,” *Medical Physics*, vol. 42, pp. 6919–6932, 2015.

J. L. Gaglia, M. G. Harisinghani, **I. Aganj**, G. R. Wojtkiewicz, S. Hedgire, C. Benoist, D. Mathis, and R. Weissleder, “Noninvasive mapping of pancreatic inflammation in recent-onset type-1 diabetes patients,” *Proceedings of the National Academy of Sciences*, vol. 112, pp. 2139–2144, 2015.

**I. Aganj**, M. Reuter, M. R. Sabuncu, and B. Fischl, “Avoiding symmetry-breaking spatial non-uniformity in deformable image registration via a quasi-volume-preserving constraint,” *NeuroImage*, vol. 106, pp. 238–251, 2015.

J. E. Iglesias, M. R. Sabuncu, **I. Aganj**, P. Bhatt, C. Casillas, D. Salat, A. Boxer, B. Fischl, and K. Van Leemput, “An algorithm for optimal fusion of atlases with different labeling protocols,” *NeuroImage*, vol. 106, pp. 451–463, 2015.

G. Prasad, S. Joshi, N. Jahanshad, J. Villalon, **I. Aganj**, C. Lenglet, G. Sapiro, K. McMahon, G. de Zubicaray, N. Martin, M. Wright, A. Toga., and P. Thompson, “Automatic clustering and population analysis of white matter tracts using maximum density paths,” *NeuroImage*, vol. 97, pp. 284–295, 2014.

**I. Aganj**, B. T. T. Yeo, M. R. Sabuncu, and B. Fischl, “On removing interpolation and resampling artifacts in rigid image registration,” *IEEE Transactions on Image Processing*, vol. 22, no. 2, pp. 816–827, 2013.

E. Caruyer, **I. Aganj**, C. Lenglet, G. Sapiro, and R. Deriche, “Motion detection in diffusion MRI via online ODF estimation,” *International Journal of Biomedical Imaging*, vol. 2013, Article ID 849363, 2013.

**I. Aganj**, C. Lenglet, E. Yacoub, G. Sapiro, and N. Harel, “A 3D wavelet fusion approach for the reconstruction of isotropic-resolution MR images from orthogonal anisotropic-resolution scans,” *Magnetic Resonance in Medicine*, vol. 67, no. 4, pp. 1167–1172, 2012.

**I. Aganj**, C. Lenglet, N. Jahanshad, E. Yacoub, N. Harel, P. Thompson, and G. Sapiro, “A Hough transform global probabilistic approach to multiple-subject diffusion MRI tractography,” *Medical Image Analysis*, vol. 15, no. 4, pp. 414–425, 2011.

**I. Aganj**, C. Lenglet, G. Sapiro, E. Yacoub, K. Ugurbil, and N. Harel, “Reconstruction of the orientation distribution function in single and multiple shell q-ball imaging within constant solid angle,” *Magnetic Resonance in Medicine*, vol. 64, no. 2, pp. 554–566, 2010.

**I. Aganj**, G. Sapiro, N. Parikshak, S. K. Madsen, and P. Thompson, “Measurement of cortical thickness from MRI by minimum line integrals on soft-classified tissue,” *Human Brain Mapping*, vol. 30, no. 10, pp. 3188–3199, 2009.

R. Narasimha, **I. Aganj**, A. Bennett, M. Borgnia, D. Zabransky, G. Sapiro, S. McLaughlin, J. Milne, and S. Subramaniam, “Evaluation of denoising algorithms for biological electron tomography,” *Journal of Structural Biology*, vol. 164, no. 1, pp. 7–17, 2008.

## **Book Chapter**

**I. Aganj**, G. Sapiro, and N. Harel, “Q-space modeling in diffusion-weighted MRI,” in *Brain Mapping: An Encyclopedic Reference*, A. W. Toga, Ed., Waltham: Academic Press, 2015, pp. 257–263.

## **Conference Papers**

F. Xing, X. Liu, **I. Aganj**, B. W. Choi, and J. Woo, “Domain adaptive myocardial segmentation using multi-platform cine magnetic resonance images” in *Proc. SPIE Medical Imaging*, Article no. 13406-62, pp. 1–5, 2025.

**I. Aganj** and S. Nasr, “Selective functional connectivity between ocular dominance columns in the primary visual cortex,” in *Proc. 11<sup>th</sup> MICCAI Workshop on Ophthalmic Medical Image Analysis*, pp. 1–10, 2024.

**I. Aganj** and B. Fischl, “Intermediate deformable image registration via windowed cross-correlation,” in *Proc. 20<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 1–5, Cartagena de Indias, Colombia, 2023.

A. Kazi, J. Mora, B. Fischl, A. V. Dalca, and **I. Aganj**, “Multi-head graph convolutional network for structural connectome classification,” in *Proc. 5<sup>th</sup> MICCAI Workshop on Graphs in Biomedical Image Analysis*, pp. 27–36, 2023.

A. Kazi, S. Farghadani, **I. Aganj**, and N. Navab, “IA-GCN: Interpretable attention based graph convolutional network for disease prediction,” *Proc. 14<sup>th</sup> International Conference on Machine Learning in Medical Imaging (held in conjunction with MICCAI)*, pp. 382–392, 2023.

H. Behjat, C.-F. Westin, and **I. Aganj**, “Cortical surface-informed volumetric spatial smoothing of fMRI data via graph signal processing,” in *Proc. 43<sup>rd</sup> Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, pp. 3804–3808, 2021.

H. Behjat, **I. Aganj**, D. Abramian, A. Eklund, and C.-F. Westin, “Characterization of spatial dynamics of fMRI data in white matter using diffusion-informed white matter harmonics,” in *Proc. 18<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 1586–1590, Nice, France, 2021.

**I. Aganj**, A. Frau-Pascual, J. E. Iglesias, A. Yendiki, J. Augustinack, D. Salat, and B. Fischl, “Compensatory brain connection discovery in Alzheimer’s disease,” in *Proc. 17<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 283–287, Iowa City, IA, 2020.

A. Frau-Pascual, J. Augustinack, D. Varadarajan, A. Yendiki, B. Fischl, and **I. Aganj**, “Detecting structural brain connectivity differences in dementia through a conductance model,” in *Proc. 53<sup>rd</sup> Asilomar Conference on Signals, Systems, and Computers*, pp. 591–595, Pacific Grove, CA, 2019. (oral presentation)

**I. Aganj** and B. Fischl, “Expected label value computation for atlas-based image segmentation,” in *Proc. 16<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 334–338, Venice, Italy, 2019. (oral presentation)

S. Koley, C. Chakraborty, C. Mainero, B. Fischl, and **I. Aganj**, “A fast approach to automatic detection of brain lesions,” in *Proc. MICCAI Brain Lesions Workshop*, pp. 52–61, Athens, Greece, 2016. (oral presentation)

Y. Zhang, **I. Aganj**, A. van der Kouwe, and M. D. Tisdall, “Effects of resolution and registration algorithm on the accuracy of EPI vNavs for real time head motion correction in MRI,” in *Proc. 7<sup>th</sup> International Workshop on Biomedical Image Registration (held in conjunction with IEEE CVPR)*, pp. 583–591, Las Vegas, NV, 2016.

**I. Aganj**, J. E. Iglesias, M. Reuter, M. R. Sabuncu, and B. Fischl, “Mid-space-independent symmetric data term for pairwise deformable image registration,” in *Proc. 18<sup>th</sup> International Conference on Medical Image Computing and Computer Assisted Intervention*, pp. 263–271, Munich, Germany, 2015.

**I. Aganj**, M. Reuter, M. R. Sabuncu, and B. Fischl, “Symmetric non-rigid image registration via an adaptive quasi-volume-preserving constraint,” in *Proc. 10<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 234–237, San Francisco, CA, 2013.

A. Kamath, **I. Aganj**, J. G. Xu, E. Yacoub, K. Ugurbil, G. Sapiro, and C. Lenglet, “Generalized constant solid angle ODF and optimal acquisition protocol for fiber orientation mapping,” in *Proc. MICCAI Workshop on Computational Diffusion MRI*, pp. 67–78, Nice, France, 2012.

G. Prasad, S. Joshi, N. Jahanshad, J. Villalon, **I. Aganj**, C. Lenglet, G. Sapiro, K. McMahon, G. de Zubicaray, N. Martin, M. Wright, A. Toga, and P. Thompson, “White matter tract analysis in 454 adults using maximum density paths,” in *Proc. MICCAI Workshop on Computational Diffusion MRI*, pp. 1–12, Toronto, Canada, 2011.

E. Caruyer, **I. Aganj**, C. Lenglet, G. Sapiro, and R. Deriche, “Online motion detection in high angular resolution diffusion imaging,” in *Proc. 8<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 516–519, Chicago, IL, 2011.

N. Jahanshad, **I. Aganj**, C. Lenglet, A. Joshi, Y. Jin, M. Barysheva, K. McMahon, G. de Zubicaray, N. Martin, M. Wright, A. Toga, G. Sapiro, and P. Thompson, “Sex differences in the human connectome: 4-Tesla high angular resolution diffusion imaging (HARDI) tractography in 234 young adult twins,” in *Proc. 8<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 939–943, Chicago, IL, 2011.

- G. Prasad, N. Jahanshad, **I. Aganj**, C. Lenglet, G. Sapiro, A. Toga, and P. Thompson, “Atlas-based fiber clustering for multi-subject analysis of high angular resolution diffusion imaging tractography,” in *Proc. 8<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 276–280, Chicago, IL, 2011.
- L. Zhan, A. Leow, **I. Aganj**, C. Lenglet, G. Sapiro, E. Yacoub, N. Harel, A. Toga, and P. Thompson, “Differential information content in staggered multiple shell HARDI measured by the tensor distribution function,” in *Proc. 8<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 305–309, Chicago, IL, 2011.
- Y. Jin, Y. Shi, N. Jahanshad, **I. Aganj**, G. Sapiro, A. Toga, and P. Thompson, “3D elastic registration improves HARDI-derived fiber alignment and automated tract clustering,” in *Proc. 8<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 822–826, Chicago, IL, 2011.
- I. Aganj**, C. Lenglet, and G. Sapiro, “ODF maxima extraction in spherical harmonic representation via analytical search space reduction,” in *Proc. 13<sup>th</sup> International Conference on Medical Image Computing and Computer Assisted Intervention*, pp. 84–91, Beijing, China, 2010.
- E. Caruyer, **I. Aganj**, C. Lenglet, G. Sapiro, and R. Deriche, “Online orientation distribution function reconstruction in constant solid angle and its application to motion detection in HARDI,” in *Proc. 7<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 812–815, Rotterdam, Netherlands, 2010.
- I. Aganj**, C. Lenglet, G. Sapiro, E. Yacoub, K. Ugurbil, and N. Harel, “Multiple q-shell ODF reconstruction in q-ball imaging,” in *Proc. 12<sup>th</sup> International Conference on Medical Image Computing and Computer Assisted Intervention*, pp. 423–431, London, UK, 2009.
- I. Aganj**, C. Lenglet, and G. Sapiro, “ODF reconstruction in q-ball imaging with solid angle consideration,” in *Proc. 6<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 1398–1401, Boston, MA, 2009. (oral presentation)
- I. Aganj**, G. Sapiro, N. Parikshak, S. K. Madsen, and P. Thompson, “Segmentation-free measurement of cortical thickness from MRI,” in *Proc. of the 5<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 1625–1628, Paris, France, 2008. (oral presentation)
- D. Rother, K. Patwardhan, **I. Aganj**, and G. Sapiro, “3D priors for scene learning from a single view,” in *Proc. IEEE Workshop on Search in 3D (held in conjunction with IEEE CVPR)*, pp. 1–8, Anchorage, AK, 2008.
- I. Aganj**, A. Bartesaghi, M. Borgnia, H.Y. Liao, G. Sapiro, and S. Subramaniam, “Regularization for inverting the Radon transform with wedge consideration,” in *Proc. 4<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 217–220, Arlington, VA, 2007. (oral presentation)
- R. Narasimha, **I. Aganj**, M. Borgnia, G. Sapiro, S. McLaughlin, J. Milne, and S. Subramaniam, “From gigabytes to bytes: Automated denoising and feature identification in electron tomograms of intact bacterial cells,” in *Proc. 4<sup>th</sup> IEEE International Symposium on Biomedical Imaging*, pp. 304–307, Arlington, VA, 2007.
- ## Conference Abstracts
- I. Aganj**, M. Vera, T. Feiweier, A. J. van der Kouwe, J. E. Kirsch, and B. Fischl, “Estimation of the spatial gradient of the MR image from the diffusion profile,” in *Proc. ISMRM & ISMRT 2023 Annual Meeting & Exhibition*, Toronto, Canada, 2023.
- S. Nasr, S. N. Malladi, R. B. H. Tootell, and **I. Aganj**, “Resting-state functional connectivity between ocular dominance columns,” in *Proc. Annual Meeting of the Organization for Human Brain Mapping*, Montréal, Canada, 2023.
- D. Y. Ts’o, R. A. Miller, M. Begum, **I. Aganj**, and S. Nasr, “Short-term monocular deprivation impacts the ocular dominance columns of adult visual cortex,” in *Proc. Annual Meeting of the Society for Neuroscience*, Washington, D.C., USA, 2023.
- I. Jang, M. Hoffmann, N. Singh, Y. Balbastre, L. Chen, M. A. Bezerra Cavalcanti Rockenbach, A. Dalca, **I. Aganj**, J. Kalpathy-Cramer, B. Fischl, and R. Frost, “Clinical evaluation of k-space correlation informed motion artifact”

detection in segmented multi-slice MRI,” in *Proc. ISMRM & ISMRT 2023 Annual Meeting & Exhibition*, Toronto, Canada, 2023.

S. Nasr, J. Skerswetat, B. Kennedy, P. Sok, S. N. Malladi, **I. Aganj**, P. Bex, D. G. Hunter, and E. Gaier, “Amblyopia disrupts balanced ocular dominance (OD) activity in humans,” in *Proc. Annual Meeting of the Association for Research in Vision and Ophthalmology*, New Orleans, LA, USA, 2023.

I. Jang, R. Frost, M. Hoffmann, N. Singh, L. Chen, A. Guidon, M. A. Bezerra Cavalcanti Rockenbach, D. Comeau, B. Bizzo, K. Chang, S. Witham, D. Rettmann, S. Banerjee, A. Brau, T. Reese, **I. Aganj**, A. Dalca, B. Fischl, and J. Kalpathy-Cramer, “Automated MRI k-space motion artifact detection in segmented multi-slice sequences,” in *Proc. 2022 Joint Annual Meeting ISMRM-ESMRMB & ISMRT 31<sup>st</sup> Annual Meeting*, London, England, 2022.

N. M. Singh, M. Hoffmann, D. C. Moyer, I. Jang, L. Chen, M. A. Bezerra Cavalcanti Rockenbach, A. Guidon, **I. Aganj**, J. Kalpathy-Cramer, E. Adalsteinsson, B. Fischl, A. V. Dalca, P. Golland, and R. Frost, “Joint neural network for fast retrospective rigid motion correction of accelerated segmented multislice MRI,” in *Proc. 2022 Joint Annual Meeting ISMRM-ESMRMB & ISMRT 31<sup>st</sup> Annual Meeting*, London, England, 2022.

M. Mohammadi, A. Frau-Pascual, **I. Aganj**, J. Beaujoin, F. Lechanoine, T. Jacqueson, F. Poupon, C. Poupon, C. Destrieux, and F. Andersson, “High-resolution ex-vivo structural brainstem connectivity estimated via a conductance model,” in *Proc. Annual Meeting of the Organization for Human Brain Mapping*, Montréal, Canada, 2020.

H. Wang, V. Siless, M. Fogarty, **I. Aganj**, D. Greve, and B. Fischl, “The optical property and morphometry of human cerebellum cortex with automatic serial sectioning polarization sensitive optical coherence tomography,” in *Proc. SPIE Photonics West*, San Francisco, CA, 2020. (oral presentation)

D. Kothapalli, M. A. Tubi, S. I. Thomopoulos, **I. Aganj**, M. D. Sweeney, L. S. Schneider, E. B. Joe, J. M. Ringman, H. Yassine, M. G. Harrington, B. V. Zlokovic, A. W. Toga, H. C. Chui, P. M. Thompson, and M. N. Braskie, “Automated measurement of medial temporal lobe subregion cortical thickness using minimum line integrals,” in *Proc. 49<sup>th</sup> Annual Meeting of the Society for Neuroscience*, Chicago, IL, 2019. (oral presentation)

A. Frau-Pascual, A. Yendiki, B. Fischl, and **I. Aganj**, “Global quantification of structural brain connectivity,” in *Proc. Annual Meeting of the Organization for Human Brain Mapping*, Singapore, 2018.

Y. Zhang, **I. Aganj**, A. van der Kouwe, and M. D. Tisdall, “Accurate high-speed 3D-registration of EPI vNavs for head motion correction,” in *Proc. 25<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine*, Honolulu, HI, 2017.

**I. Aganj**, G. Prasad, P. Srinivasan, A. Yendiki, P. M. Thompson, and B. Fischl, “Structural brain network augmentation via Kirchhoff’s laws,” in *Proc. Joint Annual Meeting of ISMRM-ESMRMB*, Milan, Italy, 2014.

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