

# 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 Assistant in Neuroscience 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 Odyssee 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

- 2021 Multi-Year Funded Research Project (RF1) Grant (\$1,123,783 direct + 68% IDC, over 3 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

- 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://publons.com/researcher/1356782/iman-aganj/peer-review>

## 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

**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*, in press, 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**

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*, 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. 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**

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.

A. Gholipour, O. Afacan, **I. Aganj**, and S. Warfield, “Super-resolution MRI reconstruction in image, frequency, and wavelet domains,” in *Proc. Joint Annual Meeting of ISMRM-ESMRMB*, Milan, Italy, 2014.

G. Prasad, **I. Aganj**, and P. Thompson, “Synthesizing connectivity networks to improve classification of Alzheimer’s disease,” in *Proc. 43<sup>rd</sup> Annual Meeting of the Society for Neuroscience*, San Diego, CA, 2013.

A. Kamath, **I. Aganj**, J. Xu, E. Yacoub, K. Ugurbil, G. Sapiro, and C. Lenglet, “Optimal acquisition protocol for white matter fiber orientation mapping using generalized CSA-ODF reconstruction,” in *Proc. 21<sup>st</sup> Annual Meeting of International Society for Magnetic Resonance in Medicine*, Salt Lake City, UT, 2013.

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, “Genetic analysis of fibers in white matter pathways from HARDI images,” in *Proc. 18<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Beijing, China, 2012.

**I. Aganj**, C. Lenglet, E. Yacoub, G. Sapiro, and N. Harel, “A wavelet fusion approach to the reconstruction of isotropic-resolution MR images from anisotropic orthogonal scans,” in *Proc. 19<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine*, Montréal, Canada, 2011.

N. Jahanshad, **I. Aganj**, C. Lenglet, G. Sapiro, A. Toga, K. McMahon, G. de Zubicaray, N. Martin, M. Wright, and P. Thompson, “4-Tesla high angular resolution diffusion tractography analysis of the human connectome in 234 subjects: Sex differences and EPI distortion effects,” in *Proc. 19<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine*, Montréal, Canada, 2011.

E. Caruyer, **I. Aganj**, C. Lenglet, G. Sapiro, and R. Deriche, “Online reconstruction and motion detection in HARDI,” in *Proc. 19<sup>th</sup> Annual Meeting of International Society for Magnetic Resonance in Medicine*, Montréal, Canada, 2011.

- S. N. Sotiropoulos, **I. Aganj**, S. Jbabdi, G. Sapiro, C. Lenglet, and T. E. Behrens, “Inference on constant solid angle orientation distribution functions from diffusion-weighted MRI,” in *Proc. 17<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Québec City, Canada, 2011.
- G. Prasad, N. Jahanshad, **I. Aganj**, C. Lenglet, G. Sapiro, A. W. Toga, and P. M. Thompson, “Atlas-based fiber clustering for multi-subject HARDI tractography,” in *Proc. 17<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Québec City, Canada, 2011.
- L. Zhan, J. J. GadElkarim, A. D. Leow, **I. Aganj**, C. Lenglet, G. Sapiro, N. Harel, A. W. Toga, and P. M. Thompson, “Probabilistic tractography using the tensor distribution function in multiple-shell HARDI,” in *Proc. 17<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Québec City, Canada, 2011.
- I. Aganj**, N. Jahanshad, C. Lenglet, A. W. Toga, K. L. McMahon, G. I. de Zubicaray, M. J. Wright, N. G. Martin, G. Sapiro, and P. Thompson, “Relating fiber crossing in HARDI to intellectual function,” in *Proc. 16<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Barcelona, Spain, 2010.
- L. Zhan, A. D. Leow, **I. Aganj**, C. Lenglet, G. Sapiro, N. Harel, A. W. Toga, and P. Thompson, “Tensor distribution function in multiple shell high angular resolution diffusion imaging,” in *Proc. 16<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, Barcelona, Spain, 2010.
- I. Aganj**, C. Lenglet, and G. Sapiro, “Accurate ODF reconstruction in q-ball imaging,” in *Proc. 15<sup>th</sup> Annual Meeting of the Organization for Human Brain Mapping*, San Francisco, CA, 2009.
- I. Aganj**, C. Lenglet, G. Sapiro, M. C. Chiang, and P. Thompson, “Multi-subject diffusion MRI tractography via a Hough transform global approach,” in *Proc. 15<sup>th</sup> Organization for Human Brain Mapping*, San Francisco, CA, 2009. (oral presentation)
- I. Aganj**, C. Lenglet, R. Keriven, G. Sapiro, N. Harel, and P. Thompson, “A Hough transform global approach to diffusion MRI tractography,” in *Proc. 17<sup>th</sup> Annual Meeting of the International Society for Magnetic Resonance in Medicine*, Honolulu, HI, 2009. (oral presentation)