

## LIST OF PUBLICATIONS

Publication statistics summary:

Publications – so far Amir published a total of 70 peer reviewed papers, 48 research papers, 12 peer reviewed reviews, 10 peer reviewed conference papers & 9 book chapters and in the process of writing one a textbook. The total number of citations from google scholar is 4976. His google scholar H index is 29 and i10 is 40.

His publication list is including papers in key venues like: 3 Nature Neuroscience papers, 2 Neuron articles, 2 PNAS papers, 2 Current Biology papers (1 paper, 1 review), 2 papers in the Journal of Neuroscience, 4 papers in Cerebral Cortex, 2 papers in NeuroImage, 2 papers in Scientific Reports and a single paper in Nature Communications, Brain, Trends in Cognitive Sciences, Current Opinion in Neurobiology & Neuroscience and Biobehavioral Reviews).

Key publications:

- **Amedi, A.<sup>S</sup>**, Malach, R.<sup>C</sup>, Hendler, T.<sup>C</sup>, Peled, S.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2001). *Visuo-haptic object-related activation in the ventral visual pathway*. Nature Neuroscience 4:324-330. 16.09514; 3/509 (Neuroscience); {486, 340} [top 1%]
- **Amedi, A.<sup>S</sup>**, Raz, N.<sup>S</sup>, Pianka, P.<sup>C</sup>, Malach, R.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2003). *Early 'visual' cortex activation correlates with superior verbal-memory performance in the blind*. Nature Neuroscience 6:758-66. 16.09514; 3/509 (Neuroscience); {380, 256} [top 1%]; [SEE ALSO NEWS AND VIEW ON THE PAPER IN NATURE NEUROSCIENCE:
- **Amedi, A.<sup>S</sup>**, Floel, A.<sup>PD</sup>, Knecht, S.<sup>C</sup>, Zohary, E.<sup>C</sup>, Cohen, LG.<sup>PI</sup> (2004). *Transcranial magnetic stimulation of the occipital pole interferes with verbal processing in blind subjects*. Nature Neuroscience 7:1266-70. 16.09514; 3/509 (Neuroscience); {172, 122} [top 1%]
- Pascual-Leone, A.<sup>PI</sup>, **Amedi, A.<sup>PD</sup>**, Fregni, F.<sup>PD</sup>, Merabet, L.<sup>PI</sup> (2005). *The Plastic Human Brain Cortex*. Annual Reviews in Neuroscience 28:377-401. 24.822;2/231(Neuroscience); {959, 502} [top 1%]
- **Amedi, A.<sup>PI</sup>**, #, Stern, W.<sup>PD</sup>, Camprodon, JA.<sup>PD</sup>, Bermpohl, F.<sup>PD</sup>, Merabet, L.<sup>PD</sup>, Rotman, S.<sup>S</sup>, Hemond, CC.<sup>S</sup>, Meijer, P.<sup>C</sup>, Pascual-Leone, A.<sup>PI</sup> (2007). *Shape conveyed by visual-to-auditory sensory substitution activates the lateral occipital complex*. Nature Neuroscience 10: 687-689. 16.09514; 3/509 (Neuroscience); {229, 145} [top 1%]
- Striem-Amit E.<sup>S</sup>, Dakwar O.<sup>S</sup>, Reich L.<sup>S</sup>, **Amedi A.<sup>PI</sup>** (2012). *The large-scale organization of 'visual' streams emerges without visual experience*. Cerebral Cortex 22:1698-1709] [# corresponding author with HUJI affiliation] 8.665; 21/509 (Neuroscience); {51, 3f} [top 5%]
- Zeharia, N. <sup>S</sup>, Hertz, U. <sup>S</sup>, Flash, T. <sup>C</sup>, **Amedi, A.<sup>PI</sup>**. (2012). *Negative blood oxygenation level dependent homunculus and somatotopic information in primary motor cortex and supplementary motor area*. PNAS 109: 18565-18570. 9.674.{ 16, 13}[top 5%]
- Striem-Amit, E. <sup>S</sup>, Cohen, L. <sup>C</sup>, Dehaene, S. <sup>C</sup>, **Amedi, A. <sup>PI</sup>** (2012). *Reading with Sounds: Sensory Substitution Selectively Activates the Visual Word Form Area in the Blind*. Neuron 70: 640-652 [The paper had a huge impact this year including highlights in the Nature magazine (under news),in the highly

- popular Nature Neuroscience podcast monthly pod cast and many international journals and newspapers]. 15.054. 4/509 (Neuroscience); {75, 49} [top 1%].
- Hertz U<sup>S</sup>, **Amedi A<sup>PI</sup>**. *Flexibility and stability in sensory processing revealed using visual-to-auditory sensory substitution*. Cerebral Cortex (2014). 8.665 21/509 (Neuroscience); {3 ,0} [top 5%]
  - Striem-Amit,E. <sup>S</sup>, **Amedi, A.<sup>PI</sup>**. *Visual Cortex Extrastriate Body-Selective Area Activation in Congenitally Blind People “Seeing” by Using Sounds*. Current Biology (2014); 9.571. 23/1873 (Agricultural and Biology Sciences) {33, 21} [top 5%] [# corresponding author with HUJI affiliation]; [SEE ALSO NEWS AND VIEWS IN NATURE ON THE PAPER:
  - Striem-Amit E<sup>S</sup>, Ovidia-Caro S<sup>C</sup>, Caramazza A<sup>C</sup>, Margulies D<sup>C</sup>, Villringer A<sup>C</sup>, **Amedi A<sup>PI</sup>**. *Functional connectivity of visual cortex in the blind follows retinotopic organization principles*. Brain 2015. 9.196. 227/22878 (all); {10, 6} [top 1%]
  - Zeharia N<sup>S</sup>, Hertz U<sup>S</sup>, Flash T<sup>C</sup>, **Amedi A<sup>PI</sup>**. *New Whole-body Sensory-Motor Gradients Revealed Using Phase-Locked Analysis and Verified using MVPA and Functional Connectivity*. The Journal of Neuroscience 2015; 6.344 18/509 (Neuroscience); {0, 0} [top 5%]
  - Abboud S<sup>S</sup>, Maidenbaum S<sup>S</sup>, Dehaene S<sup>C</sup>, **Amedi A<sup>PI</sup>**. *A number-form area in the blind*. Nature Communications 2015. 192/22878 (all) 11.470. {11, 4} [top 1%]
  - Tal Z<sup>S</sup>, Geva R<sup>S</sup>, **Amedi A<sup>PI</sup>**. *The origins of metamodality in visual tools area LO: Bodily topographical biases and increased functional connectivity to S1*. NeuroImage 2015 [In Press; Epub ahead of print].

PI= principal investigator, C=co-researcher, S= student, PD= postdoc T=lab tech.  
In bold= submitted chosen reprints best representing my research.

1. Doctoral Dissertation: “Visual and multisensory processing and plasticity in the human brain”, Prof. Ehud Zohari, Hebrew University, Prof. Rafael Malach, Weizmann Institute of Science. July 2005. Publications emanated from the dissertation: Numbers #1-4 in general list.

2. Books:  
None

3. Books Edited:  
Collignon O<sup>PI</sup>, **Amedi A<sup>PI</sup>**, Lepore F<sup>PI</sup>. *Handbook of Crossmodal Plasticity* (In preparation)

#### 4. Chapters in Collections:

- Merabet, L.<sup>PD</sup>, **Amedi, A.**<sup>PD</sup>, Pascual-Leone, A.<sup>PI</sup>. Activation of the Primary Visual Cortex by Braille reading in Blind Subjects (2006). 377-394. In: Reprogramming the Cerebral Cortex, plasticity following central and peripheral lesions (Eds. S. Lomber and D. Eggermont). Oxford University Press, New York, USA.
- Merabet, L.<sup>PD</sup>, Bass-Pitskel, N.<sup>S</sup>, **Amedi, A.**<sup>C</sup>, Pascual-Leone A.<sup>PI</sup> (2008). 23-42. The plastic human brain in blind individuals: The cause of disability and the opportunity for rehabilitation. In: Blindness and brain plasticity in navigation and object perception, (Eds. J. J. Rieser, D. H. Ashmead, F. F. Ebner, and A. L. Corn). Lawrence Erlbaum Associates, New York, USA.
- Bubic, A.<sup>PD</sup>, Striem-Amit E.<sup>S</sup>, **Amedi, A.**<sup>PI, #</sup>. Large-scale brain plasticity following blindness and the use of sensory substitution devices (2010). 351-380. In: Multisensory object perception in the primate brain (Eds. J. Kaiser and M.J. Naumer). Springer Press, New York, USA.  
*[# corresponding author with HUJI affiliation]*
- Amedi, A.**<sup>PI, #</sup>, Merabet, L.<sup>C</sup>, Tal, N.<sup>S</sup>, Pascual-Leone, A.<sup>PI</sup> (2011). 465-480. Pictorial art beyond sight: revealing the mind of a blind painter. In: Art and the Senses, (Eds. F. Bacci, D. Melcher). Oxford University Press, New York, USA. *[# corresponding author with HUJI affiliation]*
- Amedi, A.**<sup>PI, #</sup>. The occipital lobe and language (2011). In: The Cambridge Encyclopedia of the language sciences (Ed. P. Hogan). Cambridge University Press, Cambridge, UK. *[In Press] [# corresponding author with HUJI affiliation]*
- Striem-Amit, E.<sup>S</sup>, Bubic, A.<sup>PD</sup>, **Amedi, A.**<sup>PI, #</sup> (2011). Neurophysiological mechanisms underlying plastic changes and rehabilitation following sensory loss in blindness and deafness. In: Frontiers in the Neural Bases of Multisensory Processes, (Eds. M.M. Murray & M.T. Wallace). Taylor and Francis, Oxford, UK. *[In Press] [# corresponding author with HUJI affiliation]*
- 
- Maidenbaum S.<sup>S</sup>, **Amedi, A.**<sup>PI, #</sup> (2012). "Applying plasticity for visual rehabilitation in adulthood" In: Plastic Vision. (Eds. L. Harris & J. Steeves). Cambridge University Press, New York, USA *[# corresponding author with HUJI affiliation]*
- Hillenbrand S, Raveh D, **Amedi A.** (2014) *What can sensory substitution tell us about the organization of the brain?* British Academy; in press
- Striem-Amit E, Dakwar O, Hertz U, Meijer P, Stern W, Pascual-Leone A, **Amedi A** (2015). *Neuroplasticity in Learning and Rehabilitation (chapter 11 The Plasticity of Neural Network Sensory-Substitution Object Shape Recognition)*.

## 5. Articles:

Original Papers in Peer Reviewed Journals. [Citations – marked by '{#GoogleS, #WOS}']

[Web of Science citation report Amedi: Total number of citations: 3082; H-index 25]

[Google Scholar citation report Amedi: Total number of citations: 4976; H-index: 29]

1. **Amedi, A.<sup>S</sup>**, Malach, R.<sup>C</sup>, Hendler, T.<sup>C</sup>, Peled, S.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2001). *Visuo-haptic object-related activation in the ventral visual pathway*. Nature Neuroscience 4:324-330. 16.09514; 3/509 (Neuroscience); {486, 340} [top 1%]
2. **Amedi, A.<sup>S</sup>**, Jacobson, G.<sup>S</sup>, Hendler, T.<sup>C</sup>, Malach, R.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2002). *Convergence of visual and tactile shape processing in the human lateral occipital complex*. Cerebral Cortex 12:1202-1212. 8.665;21/509(Neuroscience); {331, 219} [top 10%]
3. **Amedi, A.<sup>S</sup>**, Raz, N.<sup>S</sup>, Pianka, P.<sup>C</sup>, Malach, R.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2003). *Early 'visual' cortex activation correlates with superior verbal-memory performance in the blind*. Nature Neuroscience 6:758-66. 16.09514; 3/509 (Neuroscience); {380, 256} [top 1%]; [SEE ALSO NEWS AND VIEW ON THE PAPER IN NATURE NEUROSCIENCE:
4. **Amedi, A.<sup>S</sup>**, Floel, A.<sup>PD</sup>, Knecht, S.<sup>C</sup>, Zohary, E.<sup>C</sup>, Cohen, LG.<sup>PI</sup> (2004). *Transcranial magnetic stimulation of the occipital pole interferes with verbal processing in blind subjects*. Nature Neuroscience 7:1266-70. 16.09514; 3/509 (Neuroscience); {172, 122} [top 1%]
5. Raz, N.<sup>S</sup>, **Amedi, A.<sup>S</sup>**, Zohary, E.<sup>PI</sup> (2005). *V1 activation in congenitally blind is associated with episodic retrieval*. Cerebral Cortex 15:1459-1468. 8.665;21/509(Neuroscience); {93, 63} [top 5%] [this paper was not submitted to previous committee but is from PhD period]
6. **Amedi, A.<sup>PD</sup>**, Malach, R.<sup>C</sup>, Pascual-Leone, A.<sup>PI</sup> (2005). *Negative BOLD differentiates visual imagery and perception*. Neuron 48: 859-72. 15.054;4/509 (Neuroscience); {138, 96} [top 1%]
7. Bermpohl, F.<sup>PI</sup>, Pascual-Leone, A.<sup>C</sup>, **Amedi, A.<sup>PD</sup>**, Merabet, L.<sup>PD</sup>, Fregni, F.<sup>PD</sup>, Gaab, N.<sup>S</sup>, Alsop, D.<sup>C</sup>, Schlaug, G.<sup>C</sup>, Northoff, G.<sup>PI</sup> (2006). *Dissociable Networks for the Expectancy and Perception of Emotional Stimuli in the Human Brain*. Neuroimage 30:588-600. 6.357 ;1/14 (Neuroimaging; {94, 71} [top 5%]
8. Bermpohl, F.<sup>PI</sup>, Pascual-Leone, A.<sup>C</sup>, **Amedi, A.<sup>PD</sup>**, Merabet, L.<sup>PD</sup>, Fregni, F.<sup>PD</sup>, Gaab, N.<sup>S</sup>, Alsop, D.<sup>C</sup>, Schlaug, G.<sup>C</sup>, Northoff, G.<sup>PI</sup> (2006). *Attentional modulation of emotional stimulus processing: An fMRI study using emotional expectancy*. Human Brain Mapping 27: 662-677. 5.969;2/14(Neuroscience); {60, 47} [top 10%]
9. Merabet, LB.<sup>S</sup>, Swisher, JD.<sup>S</sup>, McMains, SA.<sup>S</sup>, Halko, MA.<sup>S</sup>, **Amedi, A.<sup>C</sup>**, Pascual-Leone ,A.<sup>C</sup>, Somers, DC.<sup>PI</sup> (2007). *Combined activation and deactivation of visual cortex during tactile sensory processing*. Journal of Neurophysiology 97:1633-1641. 2.887; 70/509 (Neuroscience); {92, 55} [top 15%]
10. Ramos-Estebanez, C.<sup>PD</sup>, Merabet, LB.<sup>S</sup>, Machii, K.<sup>S</sup>, Fregni, F.<sup>S</sup>, Thut, G.<sup>S</sup>, Wagner, TA.<sup>S</sup>, Romei, V.<sup>S</sup>, **Amedi, A.<sup>C</sup>**, Pascual-Leone A.<sup>PI</sup> (2007). *Visual phosphene perception modulated by sub-threshold cross-modal sensory stimulation*. Journal of Neuroscience 27: 4178-4181. 6.344;18/509 (Neuroscience); {61, 47} [top 5%]
11. **Amedi, A.<sup>PI, #</sup>**, Stern, W. <sup>PD</sup>, Camprodon, JA.<sup>PD</sup>, Bermpohl, F. <sup>PD</sup>, Merabet, L. <sup>PD</sup>, Rotman, S. <sup>S</sup>, Hemond, CC. <sup>S</sup>, Meijer, P. <sup>C</sup>, Pascual-Leone, A. <sup>PI</sup> (2007). *Shape*

- conveyed by visual-to-auditory sensory substitution activates the lateral occipital complex.* Nature Neuroscience 10: 687-689. 16.09514; 3/509 (Neuroscience); {229, 145} [top 1%] [# corresponding author with both HUJI and Harvard affiliations]
12. Bermpohl, F.<sup>PI</sup>, Pascual-Leone, A.<sup>C</sup>, **Amedi, A.**<sup>PD</sup>, Merabet, L.<sup>PD</sup>, Fregni, F.<sup>PD</sup>, Wrase, J.<sup>C</sup>, Schlagenhaut, F.<sup>C</sup>, Bauer, M.<sup>S</sup>, Heinz, A.<sup>S</sup>, Schlaug, G.<sup>S</sup>, Northoff, G.<sup>PI</sup> (2008). *Novelty seeking modulates medial prefrontal activity during the anticipation of emotional stimuli.* Psychiatry Research: Neuroimaging. 164: 81-85. 2.424; 133/509(Neuroscience); {16, 13}
  13. Romei, V.<sup>S</sup>, Brodbeck, V.<sup>C</sup>, Michel, C.<sup>C</sup>, **Amedi, A.**<sup>C</sup>, Pascual-Leone, A.<sup>C</sup> and Thut, G.<sup>PI</sup> (2008). *Spontaneous fluctuations in posterior alpha-band EEG activity reflect variability in excitability of human visual areas.* Cerebral Cortex 18: 2010-2018. 8.665; 21/509 (Neuroscience); {288, 194} [top 5%]
  14. **Amedi, A.**<sup>PI, #</sup>, Merabet, L.B.<sup>PD</sup>, Camprodon, J.<sup>PD</sup>, Bermpohl, F.<sup>PD</sup>, Fox, S.<sup>S</sup>, Ronen, I.<sup>C</sup>, Kim, D.S.<sup>C</sup>, Pascual-Leone, A.<sup>PI</sup> (2008). *Neural and behavioral correlates of drawing in an early blind painter: a case study.* Brain Research 1242: 252-262. 2.843;127/237(Neuroscience); {18, 4} [# corresponding author; Hebrew University affiliation appears in paper]
  15. Azulay, H.<sup>S</sup>, Striem, E.<sup>S</sup>, **Amedi, A.**<sup>PI</sup> (2009). *Negative BOLD in Sensory Cortices During Verbal Memory: A Component in Generating Internal Representations?* Brain Topography 21: 221-231. 3.468164/509(Neuroscience); {25, 13} [# corresponding author with HUJI affiliation]
  16. Lacey, S.<sup>PD</sup>, Tal, N.<sup>S</sup>, **Amedi, A.**<sup>C</sup>, Sathian, K.<sup>PI</sup> (2009). *A Putative Model of Multisensory Object Representation.* Brain Topography 21:269-274. 3.468;164/509(Neuroscience); {100, 69}
  17. Tal, N.<sup>S</sup>, **Amedi, A.**<sup>PI, #</sup> (2009). *Multisensory visual-tactile object related network in humans: insights gained using a novel crossmodal adaptation approach.* Experimental Brain Research 198: 165-182. 2.036;194/509 (Neuroscience); {76, 57} [# corresponding author with HUJI affiliation]
  18. **Amedi, A.**<sup>PI, #</sup>, Raz, N.<sup>S</sup>, Azulai, H.<sup>S</sup>, Malach, R.<sup>C</sup>, Zohary, E.<sup>PI</sup> (2010). *Cortical activity during tactile exploration of objects in blind and sighted humans.* Restorative Neurology and Neuroscience 28: 143-156. 2.490.; 186/509 (Neuroscience); {71, 49} [# corresponding author with HUJI affiliation]
  19. Hertz, U.<sup>S</sup>, **Amedi, A.**<sup>PI, #</sup> (2010). *Disentangling unisensory and multisensory components in audiovisual integration using a novel multi-frequency fMRI spectral analysis.* NeuroImage 52: 617-632. 6.357;1/14 (Neuroscience). {19, 17} [top 5%] [# corresponding author with HUJI affiliation]
  20. Reich, L.<sup>S</sup>, Szwed, M.<sup>S</sup>, Cohen, L.<sup>C</sup>, **Amedi, A.**<sup>PI, #</sup> (2011). *A Ventral Visual Stream Reading Center Independent of Visual Experience.* Current Biology 21: 1–6. 9.571; 23/1873 (Agricultural and Biology Sciences); {135, 69} [top 5%] [# corresponding author with HUJI affiliation]
  21. Striem, E.<sup>S</sup>, Hertz, U.<sup>S</sup>, **Amedi, A.**<sup>PI, #</sup> (2011). *Extensive cochleotopic mapping of human auditory cortical fields obtained with phase-encoding fMRI.* PLoS ONE 6(3):e17832. 3.234; 161/1873 (Agricultural and Biology Sciences) (Biology); {53, 35} [top 10%] [# corresponding author with HUJI affiliation]
  22. Striem, E.<sup>S</sup>, Dakwar, O.<sup>S</sup>, Hertz, U.<sup>S</sup>, Meijer, P.<sup>C</sup>, Stern, W.<sup>C</sup>, Pascual-Leone, A.<sup>C</sup>, **Amedi, A.**<sup>PI, #</sup> (2011); *The Neural Network of Sensory-Substitution Object Shape Recognition.* Functional Neurology, Rehabilitation, and Ergonomic 1: 271-278 {2, } [# corresponding author with HUJI affiliation]

- 
23. Levy-Tzedek, S.<sup>PD</sup>, Hanassy, S.<sup>S</sup>, Abboud, S.<sup>S</sup>, Maidenbaum, S.<sup>S</sup>, **Amedi, A.<sup>PI</sup>** (2012). *Fast, Accurate Reaching Movements with a Visual-to-Auditory Sensory Substitution Device*. Restorative Neurology and Neuroscience 30: 313-323. 2.490. 186/509 (Neuroscience); {32, 18}
  24. Striem, E.<sup>S</sup>, Guendelman, M.<sup>S</sup>, **Amedi, A.<sup>PI</sup>**, # (2012). *'Visual' acuity of the congenitally blind using visual-to-auditory sensory substitution*. PLoS ONE 7(3): e33136. doi:10.1371/journal.pone.0033136; 3.234. 161/1873 (Agricultural and Biology Sciences); {41, 26} [top 10%] [# corresponding author with HUJI affiliation]
  25. Striem-Amit E.<sup>S</sup>, Dakwar O.<sup>S</sup>, Reich L.<sup>S</sup>, **Amedi A.<sup>PI</sup>** (2012). *The large-scale organization of 'visual' streams emerges without visual experience*. Cerebral Cortex 22:1698-1709 [# corresponding author with HUJI affiliation] 8.665; 21/509 (Neuroscience); {51, 34} [top 5%]
  26. Maidenbaum S.<sup>S</sup>, **Amedi A.<sup>PI</sup>** *Applying Plasticity to Visual Rehabilitation in Adulthood*. Plasticity in Sensory Systems (2012): 229 2012;. {4, 0}
  27. Zeharia, N. <sup>S</sup>, Hertz, U. <sup>S</sup>, Flash, T. <sup>C</sup>, **Amedi, A.<sup>PI</sup>**. (2012). *Negative blood oxygenation level dependent homunculus and somatotopic information in primary motor cortex and supplementary motor area*. PNAS 109: 18565-18570. 9.674. {16, 13} [top 5%]
  28. Levy-Tzedek, S. <sup>PD</sup>, Novick, T. <sup>C</sup>, Arbel, R. <sup>S</sup>, Abboud, S. <sup>S</sup>, Maidenbaum, S. <sup>S</sup>, Vaadia, E. <sup>S</sup>, **Amedi, A.<sup>PI</sup>**. (2012). *Cross-sensory transfer of sensory-motor information: visuomotor learning affects performance on an audiomotor task, using sensory-substitution*. Scientific Reports 2:949. 5.578 . 1424/22878 (all); {25, 10} [top 10%]
  29. Striem-Amit, E. <sup>S</sup>, Cohen, L. <sup>C</sup>, Dehaene, S. <sup>C</sup>, **Amedi, A.<sup>PI</sup>** (2012). *Reading with Sounds: Sensory Substitution Selectively Activates the Visual Word Form Area in the Blind*. Neuron 70: 640-652 [The paper had a huge impact this year including highlights in the Nature magazine (under news), in the highly popular Nature Neuroscience podcast monthly pod cast, Science and many other international journals and newspapers]. 15.054. 4/509 (Neuroscience); {75, 49} [top 1%].
  30. Maidenbaum S.<sup>S</sup>, Levy-Tzedek S.<sup>PD</sup>, Chebat DR.<sup>PD</sup>, **Amedi A.<sup>PI</sup>** *Increasing Accessibility to the Blind of Virtual Environments, Using a Virtual Mobility Aid Based On the "EyeCane": Feasibility Study*. PLoS ONE (2013) 3.234. 161/1873 (Agricultural and Biology Sciences) {19, 8} [top 10%]
  31. Levy-Tzedek S.<sup>PD</sup>, Halimi M.<sup>S</sup>, **Amedi A.<sup>PI</sup>** *Seeing with your ears: a wondrous journey across the senses*. Frontiers for Young Minds (2013)
  32. Abboud S.<sup>S</sup>, Hanassy S.<sup>S</sup>, Levy-Tzedek S.<sup>PD</sup>, Maidenbaum S.<sup>S</sup>, **Amedi A.<sup>PI</sup>**. *EyeMusic: Introducing a "visual" colorful experience for the blind using auditory sensory substitution*. Restorative Neurology and Neuroscience. (2014). 2.490. 186/509 (Neuroscience); {32, 15}
  33. Maidenbaum S.<sup>S</sup>, Hanassy S.<sup>S</sup>, Abboud S.<sup>S</sup>, Buchs G.<sup>S</sup>, Chebat DR.<sup>PD</sup>, Levy-Tzedek S.<sup>PD</sup>, **Amedi A.<sup>PI</sup>**. *The "EyeCane", a new electronic travel aid for the blind: Technology, behavior & swift learning*. Restorative Neurology and Neuroscience; 2.490. 186/509 (Neuroscience); {11, 3}
  34. Maidenbaum S.<sup>S</sup>, Chebat DR.<sup>PD</sup>, Levy-Tzedek S.<sup>PD</sup>, Namer-Furstenberg R. <sup>C</sup>, **Amedi A.<sup>PI</sup>**. *The Effect of Expanded Sensory Range via the EyeCane Sensory*

- Substitution Device on the Characteristics of Visionless Virtual Navigation.* MSR 2014; {3 ,0}
35. Levy-Tzedek S<sup>PD</sup>, Riemer D<sup>S</sup>, Amedi A<sup>PI</sup>. *Color improves ‘visual’ acuity via sound.* Frontiers in Neuroscience 2014. 98/509 (Neuroscience); {3 ,0} [top 20%]
  36. Hertz U<sup>S</sup>, Amedi A<sup>PI</sup>. *Flexibility and stability in sensory processing revealed using visual-to-auditory sensory substitution.* Cerebral Cortex (2014). 8.665 21/509 (Neuroscience); {3 ,0} [top 5%]
  37. Striem-Amit, E. <sup>S</sup>, Amedi, A. <sup>PI</sup>. *Visual Cortex Extrastriate Body-Selective Area Activation in Congenitally Blind People “Seeing” by Using Sounds.* Current Biology (2014); 9.571. 23/1873 (Agricultural and Biology Sciences) {33, 21} [top 5%] [# corresponding author with HUJI affiliation]; [SEE ALSO NEWS AND VIEWS IN NATURE ON THE PAPER:
  38. Striem-Amit E<sup>S</sup>, Ovadia-Caro S<sup>C</sup>, Caramazza A<sup>C</sup>, Margulies D<sup>C</sup>, Villringer A<sup>C</sup>, Amedi A<sup>PI</sup>. *Functional connectivity of visual cortex in the blind follows retinotopic organization principles.* Brain 2015. 9.196. 227/22878 (all); {8, 6} [top 1%]
  39. Zeharia N<sup>S</sup>, Hertz U<sup>S</sup>, Flash T<sup>C</sup>, Amedi A<sup>PI</sup>. *New Whole-body Sensory-Motor Gradients Revealed Using Phase-Locked Analysis and Verified using MVPA and Functional Connectivity.* The Journal of Neuroscience 2015; 6.344 18/509 (Neuroscience); {0, 0} [top 5%]
  40. Buchs G<sup>S</sup>, Maidenbaum S<sup>S</sup>, Levy-Tzedek S<sup>PD</sup>, Amedi A<sup>PI</sup>. *Integration and binding in rehabilitative sensory substitution: increasing resolution using a new Zooming- In approach.* Restorative Neurology and Neuroscience. 2015. 2.490. 186/509 (Neuroscience);
  41. Reich L<sup>S</sup>, Amedi A<sup>PI</sup>. *‘Visual’ parsing can be taught quickly without visual experience during critical periods.* Scientific Reports. 2015. 5.578. 1424/22878 (all); [top 10%]
  42. Chebat DR<sup>PD</sup>, Maidenbaum S<sup>S</sup>, Amedi A<sup>PI</sup>. *Navigation using sensory substitution in real and virtual mazes.* PLoS ONE. 2015; 3.234. 161/1873 (Agricultural and Biology Sciences) {1 ,1}[top 10%]
  43. Abboud S<sup>S</sup>, Maidenbaum S<sup>S</sup>, Dehaene S<sup>C</sup>, Amedi A<sup>PI</sup>. *A number-form area in the blind.* Nature Communications 2015. 192/22878 (all) 11.470. {11, 4} [top 1%]
  44. Sigalov N.<sup>S</sup>, Maidenbaum S. <sup>S</sup> Amedi A<sup>PI</sup>. *Reading in the Dark: Neural Correlates and Cross-modal Plasticity for Learning to Read Entire Words without Visual Experience.* Neuropsychologia, 2015 [In Press; Epub ahead of print].
  45. Saadon-Grosman N<sup>S</sup>, Tal Z<sup>S</sup>, Itshayek E<sup>S</sup>, Amedi A<sup>C</sup>, Arzy S<sup>PI</sup>. *Discontinuity of cortical gradients reflects sensory impairment.* PNAS 2015. 112(52):16024-9 Accepted for publication.
  46. Tal Z<sup>S</sup>, Geva R<sup>S</sup>, Amedi A<sup>PI</sup>. *The origins of metamodality in visual tools area LO: Bodily topographical biases and increased functional connectivity to S1.* NeuroImage 2015 [In Press; Epub ahead of print].
  47. Maidenbaum S<sup>S</sup>, Buchs G<sup>S</sup>, Abboud S<sup>S</sup>, Lavi-Rotbain O<sup>S</sup>, Amedi A<sup>PI</sup>. *Perception of Graphical Virtual Environments by Blind Users via Sensory Substitution.* PLOS ONE 2016 [top 10%] Accepted for publication.
  48. Siuda-Krzywicka, K, Bola, L, Paplińska, M, Sumeraś, E, Jednoróg, K, Marchewka, A Śliwińska, M, Amedi A<sup>PI</sup>, Szwed, M<sup>PI</sup> E-Life 2016; Massive cortical reorganization in sighted Braille readers. Accepted for publication.

Original Papers in Peer-reviewed Conference:

49. Maidenbaum S<sup>S</sup>, Arbel R<sup>S</sup>, Abboud S<sup>S</sup>, Chebat D R<sup>PD</sup>, Levy-Tzedek S<sup>PD</sup>, **Amedi A<sup>PI</sup>** (2012). *Virtual 3D shape and orientation discrimination using point distance information*. Proc. of the 9th Intl Conf. Disability, Virtual Reality & Associated Technologies. {5, 0}
50. Maidenbaum S<sup>S</sup>, Abboud S<sup>S</sup>, Buchs G<sup>S</sup>, Levy-Tzedek S<sup>PD</sup>, **Amedi A<sup>PI</sup>**. *Demonstrating the EyeCane & EyeMusic Sensory Substitution Devices* Assistive Augmentation workshop. 2014
51. Maidenbaum, S<sup>S</sup>., Chebat, D. R<sup>PD</sup>., Levy-Tzedek S<sup>PD</sup>., & **Amedi, A<sup>PI</sup>**. *Navigation patterns and spatial perception with and without vision using assistive technology for the blind*. Journal of Vision, 14(10), 1355-1355. 2014
52. Maidenbaum S<sup>S</sup>, Arbel A<sup>S</sup>, Shapira S<sup>S</sup>, Buchs G<sup>S</sup>, **Amedi A<sup>PI</sup>**. **Vision through other senses: practical use of Sensory Substitution devices as assistive technology for visual rehabilitation**. The 22nd Mediterranean Conference on Control & Automation. 2014. {4,0}
53. Buchs G<sup>S</sup>, Maidenbaum S<sup>S</sup>, **Amedi A<sup>PI</sup>**. *Obstacle Identification and Avoidance Using the 'EyeCane'*. EuroHaptics 2014 {2,0}
54. Maidenbaum S<sup>S</sup>, **Amedi A<sup>PI</sup>**. *Sensory Substitution and Augmentation – what's happening "under the hood" in our brain?* Assistive Augmentation 2014;
55. Maidenbaum S<sup>S</sup>, Chebat DR<sup>PD</sup>, Levy-Tzedek S<sup>PD</sup>, **Amedi A<sup>PI</sup>**. *Blind in a Virtual World: Vision-deprived Virtual Navigation Patterns Using Depth Cues and The Effect of Extended Sensory Range*. CHI-WiP 2014; {1, }
56. Maidenbaum S<sup>S</sup>, Chebat DR<sup>PD</sup>, Levy-Tzedek S<sup>PD</sup>, **Amedi A<sup>PI</sup>**. *Depth-To-Audio Sensory Substitution for Navigation in Virtual Environments*. UAHCI International 2014. {3,0}
57. Maidenbaum, S<sup>S</sup>., **Amedi, A<sup>PI</sup>**. *Non-visual virtual interaction: Can Sensory Substitution generically increase the accessibility of Graphical virtual reality to the blind?* In Virtual and Augmented Assistive Technology (VAAT), 3rd IEEE VR International Workshop on (pp. 15-17). 2015
58. Buchs, G<sup>S</sup>, Maidenbaum, S<sup>S</sup>, & **Amedi, A<sup>PI</sup>**. *Augmented non-visual distance sensing with the EyeCane*. In Proceedings of the 6th Augmented Human International Conference (pp. 209-210). 2015
59. Maidenbaum S<sup>S</sup>, **Amedi A<sup>PI</sup>**. *Blind in a Virtual World: Mobility-Training Virtual Reality Games for Users who are Blind..* IEEE Virtual Reality. 2015
60. Halperin Y<sup>S</sup>, Buchs, G<sup>S</sup>, Maidenbaum, S<sup>S</sup>, Maya Amenou<sup>S</sup>, **Amedi A<sup>PI</sup>** *Social sensing: a Wi-Fi based social sense for perceiving the surrounding people*. Augmented human. 2016

Peer-Reviewed Reviews:

61. Merabet, L.<sup>PI</sup>, Rizzo, J.<sup>C</sup>, **Amedi, A.<sup>PD</sup>**, Somers, D.<sup>C</sup>, Pascual-Leone, A.<sup>PI</sup> (2005). *What blindness can tell us about seeing again: Merging neuroplasticity and neuroprostheses*. Nature Review Neuroscience 6:71-7. 26.483;1/231(Neuroscience); {144, 96} [top 1%]
62. **Amedi, A.<sup>PI</sup>, #**, Von Kriegstein, K.<sup>C</sup>, Van Atteveldt, N.<sup>C</sup>, Beauchamp, MS.<sup>C</sup>, Naumer, MJ.<sup>PI</sup> (2005). *Functional imaging of human crossmodal identification and object recognition* Experimental Brain Research 166: 559-571. 2.256;146/231(Neuroscience); {274, 194} [special Issue on multisensory integration] [# corresponding author]



63. Pascual-Leone, A.<sup>PI</sup>, **Amedi, A.<sup>PD</sup>**, Fregni, F.<sup>PD</sup>, Merabet, L.<sup>PI</sup> (2005). ***The Plastic Human Brain Cortex.*** Annual Reviews in Neuroscience 28:377-401. 24.822;2/231(Neuroscience); {959, 502} [top 1%]
64. **Amedi, A.<sup>PI, #</sup>**, Merabet, L.<sup>PD</sup>, Bormpohl, F.<sup>PD</sup>, Pascual-Leone, A.<sup>PI</sup> (2005). ***The Occipital Cortex in the Blind: Lessons about Plasticity and Vision.*** Current Directions in Psychological Science 16: 306-311. {59, 26} [Current Directions in Psychological Science is the official journal of the American Psychological Association (APA). [# corresponding author]
- 

65. Reich, L.<sup>S.</sup>, Maidenbaum, S.<sup>S.</sup>, **Amedi, A.<sup>PI, #</sup>** (2012). ***The brain as a flexible task-machine: implications for visual rehabilitation using non-invasive vs. invasive approaches.*** Current Opinion in Neurology 25:86-95. 5.021;18/185 (Clinical Neurology). {38, 27} [top 10%]
66. Maidenbaum, S.<sup>S.</sup>, Abboud, S.<sup>S.</sup>, **Amedi, A.<sup>PI</sup>**. (2013). ***Sensory substitution: Closing the gap between basic research and widespread practical visual rehabilitation.*** Neuroscience & Biobehavioral Reviews (NBR). 19/509 (Neuroscience) {22, 13} [top 5%]
67. Amir Amedi<sup>C</sup>, Maurice Ptito<sup>C</sup>, Michael J. Proulx<sup>PI</sup>. ***Multisensory integration, sensory substitution and visual rehabilitation.*** Neuroscience and Biobehavioral Reviews (NBR) 41 (2014) 1–2; 19/509 (Neuroscience) {,4} [top 5%]
68. Hannagan T<sup>C</sup>, **Amedi A<sup>C</sup>**, Cohen L<sup>C</sup>, Dehaene-Lambertz G<sup>C</sup>, Dehaene S<sup>PI</sup>. ***Origins of the specialization for letters and numbers in ventral occipitotemporal cortex.*** Trends in Cognitive Sciences. 2015; 21.965 ;5/509 (Neuroscience);{10,1} [top 1%]
69. Murray MM<sup>C</sup>, Matusz PJ<sup>C</sup>, **Amedi A<sup>PI</sup>**. ***Neuroplasticity: Unexpected Consequences of Early Blindness.*** Current Biology. 2015. 9.571. 23/1873 (Agricultural and Biology Sciences) {,1}
70. Heimler B<sup>PD</sup>, Striem-Amit E<sup>PD</sup>, **Amedi A<sup>PI</sup>**. ***Origins of task-specific sensory-independent brain organization in the visual and auditory systems: neuroscience evidence, open questions and clinical implications.*** Current Opinion in Neurobiology, 2015. 6.628. 16/509 (Neuroscience); [top 5%]

Other publications:

**Amedi, A.<sup>PI</sup>**. “Seeing” in the dark’: odyssey Journal. Volume 6. 2010. (In Hebrew; a leading science wide audience journal. Subjects covered: brain plasticity in the blind; sensory substitution aids for the blind; revealing the mind of a blind painter).

**Amedi, A.<sup>PI</sup>**. **Seeing with sounds.** Galileo journal (In Hebrew)