Resource Summary Report

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ICASSO

RRID:SCR_014981
Type: Tool

Proper Citation

ICASSO (RRID:SCR_014981)

Resource Information

URL: http://research.ics.aalto.fi/ica/icasso/

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Description: Software implementing a method for assessing both the algorithmic and statistical reliability of estimated independent components developed by Himburg et al in their 2004 paper. The method is based on running the ICA algorithm many times with slightly different conditions and visualizing the clustering structure of the obtained components in the signal space. In experiments with magnetoencephalographic (MEG) and functional magnetic resonance imaging (fMRI) data, the method was able to show that expected components are reliable; furthermore, it pointed out components whose interpretation was not obvious but whose reliability should incite the experimenter to investigate the underlying technical or physical phenomena.

Synonyms: Icasso 1.2, Icasso

Resource Type: software resource, software application, algorithm resource, data visualization software, data processing software

Defining Citation: PMID:15219593

Keywords: independent component analysis, ica, ica estimate, visualization method, tight cluster

Funding: Academy of Finland ;
Nokia Foundation

Availability: Available for download

Resource Name: ICASSO

Resource ID: SCR_014981

Record Creation Time: 20220129T080323+0000

Record Last Update: 20260808T190037+0000

Ratings and Alerts

No rating or validation information has been found for ICASSO.

No alerts have been found for ICASSO.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 43 mentions in open access literature.

Listed below are recent publications. The full list is available at SPARC SAWG .

Huang H, et al. (2026) Default Mode Network, Disorganization, and Treatment-Resistant Schizophrenia. Schizophrenia bulletin, 52(1).

Nagaya H, et al. (2026) Plasma vitamin C levels are associated with brain structural networks on MRI: A large cohort study. PloS one, 21(6), e0348504.

Arioli M, et al. (2025) The neurostructural bases of empathy: morphometric evidence for a multicomponential approach. Frontiers in psychiatry, 16, 1544632.

Arioli M, et al. (2025) Morphometric Evidence of a U-Shaped Relationship Between Loss Aversion and Posterior Insular/Somatosensory Cortical Features. Human brain mapping, 46(10), e70274.

Sato W, et al. (2025) Neural network dynamics associated with facial and subjective emotional responses. Communications biology, 9(1), 91.

Yotsuya C, et al. (2025) Altered connectivity among the triple brain networks in patients with mild cognitive impairment: a source-based morphometry study with a large elderly population. Japanese journal of radiology, 43(9), 1434.

Forlim CG, et al. (2024) Resting state network changes induced by experimental inaudible infrasound exposure and associations with self-reported noise sensitivity and annoyance. Scientific reports, 14(1), 24555.

Setiadi TM, et al. (2024) Alterations in Gray Matter Structural Networks in Amnestic Mild Cognitive Impairment: A Source-Based Morphometry Study. Journal of Alzheimer's disease : JAD, 101(1), 61.

Tu Y, et al. (2024) Relationship between brain white matter damage and grey matter atrophy in hereditary spastic paraplegia types 4 and 5. European journal of neurology, 31(8), e16310.

Li J, et al. (2024) Progressive increase of brain gray matter volume in individuals with regular soccer training. Scientific reports, 14(1), 7023.

Xie X, et al. (2023) Social reappraisal of emotions is linked with the social presence effect in the default mode network. Frontiers in psychiatry, 14, 1128916.

Li M, et al. (2023) Ameliorative patterns of grey matter in patients with first-episode and treatment-naïve schizophrenia. Psychological medicine, 53(8), 3500.

Pan J, et al. (2022) Sparse dictionary learning recovers pleiotropy from human cell fitness screens. Cell systems, 13(4), 286.

Sorella S, et al. (2022) Structural and functional brain networks of individual differences in trait anger and anger control: An unsupervised machine learning study. The European journal of neuroscience, 55(2), 510.

Wei P, et al. (2022) Comparing the reliability of different ICA algorithms for fMRI analysis. PloS one, 17(6), e0270556.

Lapomarda G, et al. (2021) Out of control: An altered parieto-occipital-cerebellar network for impulsivity in bipolar disorder. Behavioural brain research, 406, 113228.

Liu J, et al. (2021) Left Cerebral Cortex Complexity in Patients with Major Depression Disorder: A Small-Sample Pilot Study. Psychiatry and clinical psychopharmacology, 31(3), 245.

Nguyen L, et al. (2020) Brain structural network alterations related to serum cortisol levels in drug-naïve, first-episode major depressive disorder patients: a source-based morphometric study. Scientific reports, 10(1), 22096.

Zhuo C, et al. (2020) Left cerebral cortex complexity differences in sporadic healthy individuals with auditory verbal hallucinations: A pilot study. Psychiatry research, 285, 112834.

Kakeda S, et al. (2020) An independent component analysis reveals brain structural networks related to TNF-? in drug-naïve, first-episode major depressive disorder: a source-based morphometric study. Translational psychiatry, 10(1), 187.