Roberto Colom

List of Publications by Year
in descending order

153 papers	7,318 citations	47006 47 h-index	66911 78 g-index
160 all docs	160 docs citations	160 times ranked	5829 citing authors

#	Article	IF	Citations
1	Working memory is (almost) perfectly predicted by g. Intelligence, 2004, 32, 277-296.	3.0	370
2	An integrative architecture for general intelligence and executive function revealed by lesion mapping. Brain, 2012, 135, 1154-1164.	7.6	349
3	Distributed neural system for general intelligence revealed by lesion mapping. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4705-4709.	7.1	280
4	Distributed brain sites for the g-factor of intelligence. NeuroImage, 2006, 31, 1359-1365.	4.2	269
5	Working memory and intelligence are highly related constructs, but why?. Intelligence, 2008, 36, 584-606.	3.0	248
6	Human intelligence and brain networks. Dialogues in Clinical Neuroscience, 2010, 12, 489-501.	3.7	210
7	Gray matter correlates of fluid, crystallized, and spatial intelligence: Testing the P-FIT model. Intelligence, 2009, 37, 124-135.	3.0	172
8	Memory span and general intelligence: A latent-variable approach. Intelligence, 2005, 33, 623-642.	3.0	163
9	Cortical thickness correlates of specific cognitive performance accounted for by the general factor of intelligence in healthy children aged 6 to 18. NeuroImage, 2011, 55, 1443-1453.	4.2	152
10	Complex span tasks, simple span tasks, and cognitive abilities: A reanalysis of key studies. Memory and Cognition, 2006, 34, 158-171.	1.6	140
11	Cognitive ability changes and dynamics of cortical thickness development in healthy children and adolescents. NeuroImage, 2014, 84, 810-819.	4.2	124
12	The generational intelligence gains are caused by decreasing variance in the lower half of the distribution: Supporting evidence for the nutrition hypothesis. Intelligence, 2005, 33, 83-91.	3.0	120
13	Adaptive n-back training does not improve fluid intelligence at the construct level: Gains on individual tests suggest that training may enhance visuospatial processing. Intelligence, 2013, 41, 712-727.	3.0	118
14	Architecture of fluid intelligence and working memory revealed by lesion mapping. Brain Structure and Function, 2014, 219, 485-494.	2.3	116
15	Gray matter and intelligence factors: Is there a neuro-g?. Intelligence, 2009, 37, 136-144.	3.0	111
16	General intelligence and memory span: Evidence for a common neuroanatomic framework. Cognitive Neuropsychology, 2007, 24, 867-878.	1.1	107
17	Dorsolateral prefrontal contributions to human intelligence. Neuropsychologia, 2013, 51, 1361-1369.	1.6	99
18	Neuroanatomic overlap between intelligence and cognitive factors: Morphometry methods provide support for the key role of the frontal lobes. NeuroImage, 2013, 72, 143-152.	4.2	94

#	Article	IF	Citations
19	Fluid intelligence, memory span, and temperament difficulties predict academic performance of young adolescents. Personality and Individual Differences, 2007, 42, 1503-1514.	2.9	92
20	Can fluid intelligence be reduced to â€˜simpleâ€™ short-term storage?. Intelligence, 2011, 39, 473-480.	3.0	92
21	Negligible Sex Differences in General Intelligence. Intelligence, 2000, 28, 57-68.	3.0	90
22	Intelligence predicts scholastic achievement irrespective of SES factors: Evidence from Brazil. Intelligence, 2007, 35, 243-251.	3.0	89
23	Intelligence, working memory, and multitasking performance. Intelligence, 2010, 38, 543-551.	3.0	89
24	Working memory and intelligence. Personality and Individual Differences, 2003, 34, 33-39.	2.9	82
25	Architecture of cognitive flexibility revealed by lesion mapping. NeuroImage, 2013, 82, 547-554.	4.2	79
26	Education, Wechsler's Full Scale IQ, and g. Intelligence, 2002, 30, 449-462.	3.0	78
27	Gray and white matter correlates of the Big Five personality traits. Neuroscience, 2017, 349, 174-184.	2.3	76
28	Testing the developmental theory of sex differences in intelligence on 12â€“18 year olds. Personality and Individual Differences, 2004, 36, 75-82.	2.9	75
29	Brain networks for working memory and factors of intelligence assessed in males and females with fMRI and DTI. Intelligence, 2010, 38, 293-303.	3.0	75
30	Sex differences in fluid intelligence among high school graduates. Personality and Individual Differences, 2002, 32, 445-451.	2.9	74
31	Distributed neural system for emotional intelligence revealed by lesion mapping. Social Cognitive and Affective Neuroscience, 2014, 9, 265-272.	3.0	74
32	Subcortical regional morphology correlates with fluid and spatial intelligence. Human Brain Mapping, 2014, 35, 1957-1968.	3.6	72
33	Sex differences on the Dutch WAIS-III. Intelligence, 2006, 34, 273-289.	3.0	62
34	Individual differences in the dominance of interhemispheric connections predict cognitive ability beyond sex and brain size. NeuroImage, 2017, 155, 234-244.	4.2	62
35	Age dedifferentiation hypothesis Evidence from the WAIS III. Intelligence, 2002, 30, 395-408.	3.0	61
36	Multi-group covariance and mean structure modeling of the relationship between the WAIS-III common factors and sex and educational attainment in Spain. Intelligence, 2006, 34, 193-210.	3.0	61

#	Article	IF	Citations
37	The real relationship between short-term memory and working memory. Memory, 2006, 14, 804-813.	1.7	61
38	Preservation of General Intelligence following Traumatic Brain Injury: Contributions of the Met66 Brain-Derived Neurotrophic Factor. PLoS ONE, 2014, 9, e88733.	2.5	61
39	Working memory and general intelligence: The role of short-term storage. Personality and Individual Differences, 2005, 39, 1005-1014.	2.9	58
40	Sex differential item functioning in the Raven's Advanced Progressive Matrices: evidence for bias. Personality and Individual Differences, 2004, 36, 1459-1470.	2.9	55
41	Vehicles of spatial ability. Personality and Individual Differences, 2002, 32, 903-912.	2.9	54
42	Human midsagittal brain shape variation: patterns, allometry and integration. Journal of Anatomy, 2010, 216, 589-599.	1.5	54
43	Can we reliably measure the general factor of intelligence (g) through commercial video games? Yes, we can!. Intelligence, 2015, 53, 1-7.	3.0	54
44	Null Sex Differences in General Intelligence: Evidence from the WAIS-III. Spanish Journal of Psychology, 2002, 5, 29-35.	2.1	53
45	Intelligence differentiation in adult samples. Intelligence, 2003, 31, 157-166.	3.0	53
46	The secular increase in test scores is a â€œJensen effectâ€• Personality and Individual Differences, 2001, 30, 553-559.	2.9	49
47	Improvement in working memory is not related to increased intelligence scores. Intelligence, 2010, 38, 497-505.	3.0	49
48	Midsagittal brain variation and <scp>MRI</scp> shape analysis of the precuneus in adult individuals. Journal of Anatomy, 2014, 224, 367-376.	1.5	48
49	GENERATIONAL CHANGES ON THE DRAW-A-MAN TEST: A COMPARISON OF BRAZILIAN URBAN AND RURAL CHILDREN TESTED IN 1930, 2002 AND 2004. Journal of Biosocial Science, 2007, 39, 79-89.	1.2	47
50	Structural efficiency within a parieto-frontal network and cognitive differences. Intelligence, 2016, 54, 105-116.	3.0	46
51	Finding the g-factor in brain structure using the method of correlated vectors. Intelligence, 2006, 34, 561-570.	3.0	43
52	Video-games: Do they require general intelligence?. Computers and Education, 2009, 53, 414-418.	8.3	43
53	Common and unique neuro-functional basis of induction, visualization, and spatial relationships as cognitive components of fluid intelligence. NeuroImage, 2012, 62, 331-342.	4.2	43
54	Quantifying cognitive complexity: evidence from a reasoning task. Personality and Individual Differences, 2003, 35, 659-669.	2.9	42

#	Article	IF	Citations
55	Sex differences in general intelligence defined as g among young adolescents. Personality and Individual Differences, 2000, 28, 813-820.	2.9	41
56	Sex differences in brain volume are related to specific skills, not to general intelligence. Intelligence, 2012, 40, 60-68.	3.0	41
57	Changes in restingâ€state functionally connected parietofrontal networks after videogame practice. Human Brain Mapping, 2013, 34, 3143-3157.	3.6	41
58	Hippocampal structure and human cognition: Key role of spatial processing and evidence supporting the efficiency hypothesis in females. Intelligence, 2013, 41, 129-140.	3.0	40
59	SECULAR GAINS IN FLUID INTELLIGENCE: EVIDENCE FROM THE CULTURE-FAIR INTELLIGENCE TEST. Journal of Biosocial Science, 2003, 35, 33-39.	1.2	39
60	Cognitive abilities independent of IQ correlate with regional brain structure. Intelligence, 2008, 36, 18-28.	3.0	39
61	Sex differences on the Progressive Matrices are influenced by sex differences on spatial ability. Personality and Individual Differences, 2004, 37, 1289-1293.	2.9	38
62	Testing the age related differentiation hypothesis through the Wechslerâ€™s scales. Personality and Individual Differences, 2000, 29, 1069-1075.	2.9	37
63	Intelligence of adolescents is related to their parentsâ€™ educational level but not to family income. Personality and Individual Differences, 2011, 50, 1062-1067.	2.9	37
64	EEG microstates distinguish between cognitive components of fluid reasoning. NeuroImage, 2019, 189, 560-573.	4.2	37
65	Structural changes after videogame practice related to a brain network associated with intelligence. Intelligence, 2012, 40, 479-489.	3.0	35
66	Evaluating Philosophy for Children. Thinking, 2005, 17, 14-22.	0.1	35
67	Dynamic spatial performance: sex and educational differences. Personality and Individual Differences, 2001, 30, 117-126.	2.9	34
68	Reversed hierarchy in the brain for general and specific cognitive abilities: A morphometric analysis. Human Brain Mapping, 2014, 35, 3805-3818.	3.6	34
69	Lesion mapping of social problem solving. Brain, 2014, 137, 2823-2833.	7.6	34
70	Structural brain connectivity and cognitive ability differences: A multivariate distance matrix regression analysis. Human Brain Mapping, 2017, 38, 803-816.	3.6	33
71	Generational IQ gains: Spanish data. Personality and Individual Differences, 1998, 25, 927-935.	2.9	32
72	Genderâ€based differences in the shape of the human corpus callosum are associated with allometric variations. Journal of Anatomy, 2012, 220, 417-421.	1.5	32

#	Article	IF	Citations
73	Long-range functional interactions of anterior insula and medial frontal cortex are differently modulated by visuospatial and inductive reasoning tasks. NeuroImage, 2013, 78, 426-438.	4.2	32
74	Cortical surface area and cortical thickness in the precuneus of adult humans. Neuroscience, 2015, 286, 345-352.	2.3	32
75	Sex differences in neocortical structure and cognitive performance: A surface-based morphometry study. NeuroImage, 2015, 104, 355-365.	4.2	32
76	The Assessment of Spatial Ability with a Single Computerized Test. European Journal of Psychological Assessment, 2003, 19, 92-100.	3.0	32
77	Reproducibility of brain-cognition relationships using three cortical surface-based protocols: An exhaustive analysis based on cortical thickness. Human Brain Mapping, 2015, 36, 3227-3245.	3.6	31
78	Sex differences in dynamic spatial ability: The unsolved question of performance factors. Memory and Cognition, 2007, 35, 297-303.	1.6	29
79	A general factor of intelligence fails to account for changes in testsâ€™ scores after cognitive practice: A longitudinal multi-group latent-variable study. Intelligence, 2015, 50, 93-99.	3.0	28
80	Time-lagged associations between cognitive and cortical development from childhood to early adulthood.. Developmental Psychology, 2019, 55, 1338-1352.	1.6	27
81	Enhanced structural connectivity within a brain sub-network supporting working memory and engagement processes after cognitive training. Neurobiology of Learning and Memory, 2017, 141, 33-43.	1.9	26
82	Midsagittal brain shape correlation with intelligence and cognitive performance. Intelligence, 2011, 39, 141-147.	3.0	25
83	Sex differences on g and non-g intellectual performance reveal potential sources of STEM discrepancies. Intelligence, 2013, 41, 11-18.	3.0	25
84	Why is working memory related to intelligence? Different contributions from storage and processing. Memory, 2014, 22, 426-441.	1.7	25
85	Is working memory fractionated onto different components of intelligence? A reply to Mackintosh and Bennett (2003). Intelligence, 2004, 32, 431-444.	3.0	23
86	Individual differences in large-spaces orientation: g and beyond?. Personality and Individual Differences, 2000, 29, 85-98.	2.9	22
87	Working memory capacity and processing efficiency predict fluid but not crystallized and spatial intelligence: Evidence supporting the neural noise hypothesis. Personality and Individual Differences, 2009, 46, 281-286.	2.9	22
88	Neural mechanisms of discourse comprehension: a human lesion study. Brain, 2014, 137, 277-287.	7.6	22
89	Short-term storage is a stable predictor of fluid intelligence whereas working memory capacity and executive function are not: A comprehensive study with Iranian schoolchildren. Intelligence, 2014, 44, 134-141.	3.0	22
90	Fluid intelligence and working memory capacity: Is the time for working on intelligence problems relevant for explaining their large relationship?. Personality and Individual Differences, 2015, 79, 75-80.	2.9	22

#	Article	IF	Citations
91	Increased educational level is related with higher IQ scores but lower g-variance: Evidence from the standardization of the WAIS-R for Italy. Intelligence, 2015, 50, 68-74.	3.0	22
92	Are cognitive sex differences disappearing? Evidence from Spanish populations. Personality and Individual Differences, 1999, 27, 1189-1195.	2.9	20
93	Videogame Performance (Not Always) Requires Intelligence. International Journal of Online Pedagogy and Course Design, 2011, 1, 18-32.	0.4	20
94	The relationships between WAIS-IV factor index scores and educational level: A bifactor model approach.. Psychological Assessment, 2016, 28, 987-1000.	1.5	20
95	Gray matter responsiveness to adaptive working memory training: a surface-based morphometry study. Brain Structure and Function, 2016, 221, 4369-4382.	2.3	20
96	Sex Differences in Verbal Reasoning are Mediated by Sex Differences in Spatial Ability. Psychological Record, 2004, 54, 365-372.	0.9	19
97	Intellectual competence and academic performance: A Spanish study. Learning and Individual Differences, 2009, 19, 486-491.	2.7	19
98	Does g variance change in adulthood? Testing the age de-differentiation hypothesis across sex. Personality and Individual Differences, 2003, 34, 1525-1532.	2.9	18
99	Is Static Spatial Performance Distinguishable From Dynamic Spatial Performance? A Latent-Variable Analysis. Journal of General Psychology, 2003, 130, 277-288.	2.8	18
100	Working memory of emotional stimuli: Electrophysiological characterization. Biological Psychology, 2016, 119, 190-199.	2.2	18
101	Intelligence? What intelligence?. Behavioral and Brain Sciences, 2007, 30, 155-156.	0.7	17
102	Correlation between corpus callosum shape and cognitive performance in healthy young adults. Brain Structure and Function, 2013, 218, 721-731.	2.3	17
103	Lesion Mapping the Four-Factor Structure of Emotional Intelligence. Frontiers in Human Neuroscience, 2015, 9, 649.	2.0	17
104	Bridge Over Troubled Water: Commenting on Kovacs and Conway's Process Overlap Theory. Psychological Inquiry, 2016, 27, 181-189.	0.9	16
105	Fluid intelligence, working memory and executive functioning. Psicothema, 2006, 18, 816-21.	0.9	16
106	The Measurement of Intelligence in the XXI Century using Video Games. Spanish Journal of Psychology, 2016, 19, E89.	2.1	15
107	Separating power and speed components of standardized intelligence measures. Intelligence, 2017, 61, 159-168.	3.0	15
108	Separating narrow and general variances in intelligence-personality associations. Personality and Individual Differences, 2009, 47, 336-341.	2.9	14

#	Article	IF	Citations
109	Gray matter volumetric changes with a challenging adaptive cognitive training program based on the dual n-back task. Personality and Individual Differences, 2016, 98, 127-132.	2.9	14
110	Adaptive working memory training reveals a negligible effect of emotional stimuli over cognitive processing. Personality and Individual Differences, 2015, 74, 165-170.	2.9	13
111	Brain-intelligence relationships across childhood and adolescence: A latent-variable approach. Intelligence, 2018, 68, 21-29.	3.0	13
112	Distinguishing Impulsive, Unsocialized Sensation Seeking. Journal of Individual Differences, 2008, 29, 199-204.	1.0	13
113	Basic executive processes in incarcerated offenders. Personality and Individual Differences, 2010, 48, 133-137.	2.9	12
114	Gray matter correlates of cognitive ability tests used for vocational guidance. BMC Research Notes, 2010, 3, 206.	1.4	12
115	Null sex differences in general intelligence among elderly. Personality and Individual Differences, 2014, 63, 53-57.	2.9	12
116	Enhancing Intelligence: From the Group to the Individual. Journal of Intelligence, 2018, 6, 11.	2.5	12
117	Brain structural changes following adaptive cognitive training assessed by Tensor-Based Morphometry (TBM). Neuropsychologia, 2016, 91, 77-85.	1.6	11
118	Past and future academic experiences are related with present scholastic achievement when intelligence is controlled. Learning and Individual Differences, 2014, 32, 148-155.	2.7	10
119	Cognitive and neural architecture of decision making competence. NeuroImage, 2019, 199, 172-183.	4.2	10
120	Testing the structure of human cognitive ability using evidence obtained from the impact of brain lesions over abilities. Intelligence, 2021, 89, 101581.	3.0	10
121	Inteligencia y memoria de trabajo: la relaciÃ³n entre factor g, complejidad cognitiva y capacidad de procesamiento. Psicologia: Teoria E Pesquisa, 2001, 17, 37-47.	0.1	9
122	From the earth to the brain. Personality and Individual Differences, 2014, 61-62, 3-6.	2.9	9
123	Do processing speed and short-term storage exhaust the relation between working memory capacity and intelligence?. Personality and Individual Differences, 2015, 74, 241-247.	2.9	9
124	Testing the developmental theory of sex differences in intelligence using latent modeling: Evidence from the TEA Ability Battery (BAT-7). Personality and Individual Differences, 2019, 138, 212-218.	2.9	9
125	Short-term storage and mental speed account for the relationship between working memory and fluid intelligence. Psicothema, 2008, 20, 780-5.	0.9	9
126	Can a Neandertal meditate? An evolutionary view of attention as a core component of general intelligence. Intelligence, 2022, 93, 101668.	3.0	9

#	Article	IF	Citations
127	Advanced progressive matrices and sex differences: Comment to Mackintosh and Bennett (2005). Intelligence, 2007, 35, 183-185.	3.0	8
128	Disparate Connectivity for Structural and Functional Networks is Revealed When Physical Location of the Connected Nodes is Considered. Brain Topography, 2015, 28, 187-196.	1.8	8
129	Special Issue â€œThe Abilityâ€“Personality Integrationâ€• Journal of Intelligence, 2019, 7, 13.	2.5	7
130	Brain resilience across the general cognitive ability distribution: Evidence from structural connectivity. Brain Structure and Function, 2021, 226, 845-859.	2.3	7
131	A new beginning of intelligence research. Designing the playground. Intelligence, 2021, 87, 101559.	3.0	7
132	A comment on â€œFractionating Intelligenceâ€•and the peer review process. Intelligence, 2014, 46, 323-332.	3.0	6
133	Advances in Intelligence Research: What Should be Expected in the XXI Century (Questions &) Tj ETQq1 1 0.784314 rgBT /Overlo	2.1	6
134	Secular gains in fluid intelligence: evidence from the Culture-Fair intelligence test. Journal of Biosocial Science, 2003, 35, 33-9.	1.2	6
135	The Psychology of Human Intelligence in Spain. , 2004, , 79-103.		5
136	Group analyses can hide heterogeneity effects when searching for a general model: Evidence based on a conflict monitoring task. Acta Psychologica, 2019, 193, 171-179.	1.5	5
137	Rapists and Child Abusers Share Low Levels in Executive Updating, but Do not in Fluid Reasoning. European Journal of Psychology Applied To Legal Context, 2018, 11, 1-7.	4.6	5
138	Yes, but flaws remain. Intelligence, 2014, 46, 341-344.	3.0	4
139	Neuroticism, intelligence, and intra-individual variability in elementary cognitive tasks: testing the mental noise hypothesis. Psicothema, 2009, 21, 403-8.	0.9	4
140	Intelligence and Video Games. , 2019, , 626-656.		3
141	Intellectual abilities. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2020, 173, 109-120.	1.8	3
142	Imaging the Intelligence of Humans. , 2021, , 44-69.		3
143	Counting is not Measuring: Comment on Richard Lynnâ€™s Developmental Theory of Sex Differences in Intelligence. Mankind Quarterly, 2017, 58, 69-75.	0.1	3
144	Memoria de trabajo, retraso mental y dificultades de aprendizaje. Estudos De Psicologia (Campinas), 2000, 17, 67-89.	0.8	2

#	Article	IF	Citations
145	Exploratory factor analysis of brain networks reveals sub-networks related to cognitive performance. , 2013, , .		2
146	All We Need Is Brain (and Technology). Journal of Intelligence, 2014, 2, 26-28.	2.5	2
147	The Dissociation between Adult Intelligence and Personality with Respect to Maltreatment Episodes and Externalizing Behaviors Occurring in Childhood. Journal of Intelligence, 2018, 6, 31.	2.5	2
148	Armazenamento de curto prazo e velocidade de processamento explicam a relaÃ§Ã£o entre memÃ³ria de trabalho e o fator g de inteligÃªncia. Psicologia: Teoria E Pesquisa, 2006, 22, 113-122.	0.1	2
149	Reproducibility of brain-cognition relationships using different cortical surface-based analysis protocols. , 2014, , .		1
150	Still seeking for an explanation of the Sequential Compatibility Effect. Anales De Psicologia, 2015, 31, 687.	0.7	1
151	g, mutualism, and development: Cross-sectional evidence from Iranian schoolchildren. Personality and Individual Differences, 2018, 135, 222-228.	2.9	1
152	Neocortical Age and Fluid Ability: Greater Accelerated Brain Aging for Thickness, but Smaller for Surface Area, in High Cognitive Ability Individuals. Neuroscience, 2021, 467, 81-90.	2.3	1
153	Videogame Performance (Not Always) Requires Intelligence. , 0, , 230-242.		0