

[H] 2025

Author(s)	Type	Stimulus	Decoding	Notes
Dold et al.	article	modulated Gold codes	reconvolution, CCA	Dareplane, experiment platform
Dong, Zheng, Pei, Gao, and Wang	article	NBRS	EEG2Code	240 classes
M. A. Fodor, Canturk, Heisenberg, Volosyak, et al.	proceedings	m-sequence	CCA	class augmentation
M. Fodor, Cantürk, Heisenberg, and Volosyak	article	m-sequence	CCA	number of electrodes, montage
M. A. Fodor and Volosyak	proceedings	m-sequence	GAT-CNN	Deep learning, multi-head attention and graph neural net, electrode importance
Jules et al.	proceedings	burst codes	xDAWN and Riemannian	dry EEG, invisible stimuli
Guyonnet-Hencke et al.	article	Gold code	CCA	auditory hearing diagnostics
Kiser, Cantürk, and Volosyak	proceedings	m-sequence	CCA	authentication
Le, Fodor, Cantürk, and Volosyak	proceedings	m-sequence	CCA	authentication
Martín-Fernández, Martínez-Cagigal, Moreno-Calderón, Santamaría-Vázquez, and Hornero	article	m-sequence	CCA	stimulus opacity
Martín-Fernández, Martínez-Cagigal, Moreno-Calderón, Santamaría-Vázquez, Pascual-Roa, and Hornero	proceedings	m-sequence	CCA	realistic background and opacity
Martínez-Cagigal, Thielen, Hornero, and Desain	article			Editorial c-VEP
Martínez-Cagigal et al.	proceedings	m-sequence	CCA	asynchronous, early stopping
Martínez-Cagigal, Santamaría-Vázquez, Pérez-Velasco, Martín-Fernández, and Hornero	article	binary and non-binary m-sequence	CCA	binary and non-binary codes, spatial frequency, calibration time, comfort
Moreno-Calderón, Martínez-Cagigal, Martín-Fernández, Santamaría-Vázquez, and Hornero	article	m-sequence	CCA	mixed reality versus screen
Moreno-Calderón et al.	proceedings	m-sequence	CCA	mixed reality versus screen
Nair and Cecotti	preprint	m-sequence	CCA, Bayesian LDA, CNN	deep learning, siamese network
Santamaría-Vázquez et al.	proceedings			calibration-free, deep learning
H. A. Scheppink, Cantürk, and Volosyak	proceedings	m-sequence	CCA	scene/object based stimulation

Tangermann et al.	article				review learning from small datasets
Thielen, Aarnoutse, Vansteensel Thielen	Tangermann, Ramsey, and	article	modulated Gold codes	reconvolution, CCA	implanted, invasive, sEEG
Vodila, van Lohuizen, and Thielen		article	m-sequence, de Bruijn sequence, Golay sequence, Gold sequence, Gold code set, modulated	reconvolution, CCA	BCI inefficiency, performance predictors, binary stimulus sequences
Yu, Rao, Chen, Liu, and Jiang		dataset	m-sequence, de Bruijn sequence, Golay sequence, Gold sequence, Gold code set, modulated		binary stimulus sequences, EEG, ECG, SART, resting-state
Zheng, Dong, Pei, Gao, and Wang	proceedings	modulated Gold codes	reconvolution CCA		gaze-independent, covert attention, alpha, ERP, c-VEP
	article	Gold code	DBFENet, EEGNet, etc.		Robot arm, scene segmentation, deep learning
	preprint	NBRS	FBCCA		calibration-free, 504 targets

2024				
Author(s)	Type	Stimulus	Decoding	Notes
Ahmadi, Desain, and Thielen Cantürk and Volosyak Cabrera Castillos and Dehais Dehais, Castillos, Ladouce, and Clisson M. A. Fodor, Herschel, Cantürk, Heisenberg, and Volosyak C. Huang et al. E. Lai, Mai, Ji, Li, and Meng	article proceedings dataset article article article proceedings	modulated Gold codes m-sequence burst codes burst codes m-sequence white noise DIBS non-binary m-sequence	reconvolution, CCA CCA Riemannian, logistic regression CCA TRCA filterbank task related component analysis (FBTRCA), LSTM CCA	Bayesian dynamic stopping language model (ChatGPT) grating stimuli grating stimuli, dry EEG, comfort, eye-strain classification certainty feedback visual tracking asynchronous learning curve
Martínez-Cagigal, Álvaro Fernández-Rodríguez, Santamaría-Vázquez, Martín-Fernández, and Hornero Y. Miao et al.	article	white noise	TDCA, linear modeling, transfer learning EEG2Code, EEGNet, Shallow-ConvNet, DeepConvNet, ShallowNet CCA	minimal calibration, subject-to-subject transfer deep learning, transfer-learning, fine-tuning
Z. Miao, Meunier, Žák, and Grosse-Wentrup	proceedings	m-sequence		
Narayanan, Ahmadi, Desain, and Thielen Qu et al. H. Scheppink, Ahmadi, Desain, Tangermann, and Thielen Shi et al. Sun et al. Thielen, Sosulski, and Tangermann Thielen, Farquhar, and Desain Velut, Chevallier, Corsi, and Dehais Zheng, Dong, et al. Zheng, Tian, et al.	proceedings article proceedings article article proceeding dataset proceedings article dataset	modulated Gold codes m-sequence modulated Gold codes white-noise m-sequence modulated Gold codes modulated Gold codes burst codes NBRS NBRS	CCA CCA TDCA TDCA reconvolution, CCA, UMM CNN, SPDNet, transfer learning FBCCA	gaze-independent, covert attention biometrics auditory, c-AEP maximum information rate small stimuli (0.5, 1, 2, 3 visual degrees) calibration-free subject-to-subject transfer calibration-free, c-VEP versus SSVEP c-VEP versus SSVEP

2023					
Author(s)	Type	Stimulus	Decoding	Notes	
Ahmadi and Desain Cabrera Castillos, Darmet, and Dehais Cabrera Castillos Darmet, Ladouce, and Dehais Fernández-Rodríguez, Martínez-Cagigal, Santamaría-Vázquez, Ron-Angevin, and Hornero Henke et al. Z. Huang, Liao, Ou, Chen, and Zhang E. Lai, Mai, and Meng Martínez-Cagigal et al.	preprint article dataset proceedings article proceedings article proceedings article proceedings article proceedings article proceedings article proceedings article dataset proceedings article article	modulated Gold codes m-sequence, burst codes m-sequence, burst codes m-sequence m-sequence m-sequence m-sequence m-sequence, non-binary m-sequences non-binary m-sequence m-sequence non-binary m-sequence, m-sequence, APA sequence, Gold codes, Golay sequence, de Bruijn sequence m-sequence, Gold codes, Golay sequence, de Bruijn sequence, modulated codes modulated Gold codes m-sequence m-sequence	CCA CNN TRCA, EEG2Code, CNN CCA CCA Combined EEGNet FBTRCA, LSTM CCA CCA CCA EEG-inception reconvolution, CCA reconvolution, CCA CCA TRCA	Bayesian dynamic stopping Eyestrain spatial frequency Background music Biometrics fatigue Eyestrain, fatigue Dynamic stopping Games Simulated EEG Empirical EEG Gender VEPdgets, Dry EEG c-VEP versus SSVEP	

2022

Author(s)	Type	Stimulus	Decoding	Notes
Dehais et al.	article			Dry EEG, flight simulator, active and passive BCI
Stawicki and Volosyak	article	m-sequence	transfer learning	Session-to-session transfer
Sun, Zheng, Pei, Gao, and Wang	article	shifted Gold code	FBTRCA	120 targets
Ying, Wei, and Zhou	article	m-sequence	Riemannian, transfer learning	Subject-to-subject transfer
Zarei and Asl	article	m-sequence	spatiotemporal beamformer	
Zarei and Asl	article	m-sequence	spatiotemporal beamformer	Improved covariance estimator
Zheng, Pei, Gao, Zhang, and Wang	article	Gold codes	TRCA	Brain-switch

2021

Author(s)	Type	Stimulus	Decoding	Notes
Kaya, Bohorquez, and Özdamar	article	quasi steady-state	CLAD	
Martínez-Cagigal et al.	article			Review c-VEP
Thielen, Marsman, Farquhar, and Desain	article	modulated Gold codes	reconvolution, CCA	Zero-training
Torres and Daly	article	APA sequence, de Bruijn sequence, Golay sequence, m-sequence, Gold code, Kasami sequence	CCA, ICA, PCA, MLP	Synthetic EEG
Verbaarschot et al.	article	modulated Gold codes	CCA	ALS versus healthy participants

2020					
Author(s)	Type	Stimulus	Decoding	Notes	
Behboodi, Mahnam, Marateb, and Rabbani	article	m-sequence, TFO, 6FO	CCA		
Gembler, Rezeika, Benda, and Volosyak	article	m-sequence, quintary sequence	FBCCA	Presentation rate (60, 120, 240), comfort	
Gembler, Benda, Rezeika, Stawicki, and Volosyak	article	m-sequence	CCA	Asynchronous, language model	
Gembler	dissertation			c-VEP	
Gembler, Stawicki, Rezeika, Benda, and Volosyak	proceedings	m-sequence	FBCCA	Asynchronous, multi-session	
Z. Huang, Zheng, Wu, and Wang	article	m-sequence	transfer-learning	Subject-to-subject transfer	
Volosyak, Rezeika, Benda, Gembler, and Stawicki	article	m-sequence	CCA	SSVEP, SSMVEP, c-VEP, BCI illiteracy	
Shirzhiyan et al.	article	periodic, quasi-periodic, chaotic codes	CCA	Fatigue	
Turi, Gayraud, and Clerc	article	m-sequence	CCA	Auto-calibration, language model, zero training	
Yasinzai and Ider	article	m-sequence, random sequence, SOP sequences	CCA		

2019				
Author(s)	Type	Stimulus	Decoding	Notes
Ahmadi	dataset	modulated Gold codes		
Ahmadi	dataset	modulated Gold codes		
Ahmadi, Borhanazad, Tump, Farquhar, and Desain	proceedings	modulated Gold codes	CCA	Number of electrodes, montage
Ahmadi, Borhanazad, Tump, Farquhar, and Desain	article	modulated Gold codes	CCA	Number of electrodes, montage
Başaklar, Tuncel, and İder	article	m-sequence	CCA	Presentation rate (60, 120, 240 Hz)
Borhanazad, Thielen, Farquhar, and Desain	proceedings	modulated Gold codes	CCA	Presentation rate (40, 60, 90, 120 Hz)
Desain, Thielen, van den Broek, and Farquhar	patent	modulated Gold codes	CCA	
Gembler and Volosyak	article	m-sequence	CCA	Language model
Gembler, Stawicki, Rezeika, and Volosyak	proceedings	m-sequence	FBCCA	Presentation rate (30, 60, 120 Hz), age (young, elderly)
Gembler, Stawicki, Saboor, and Volosyak	article	m-sequence	FBCCA	Language model, dynamic stopping
Gembler, Benda, Saboor, and Volosyak	proceedings	m-sequence	FBCCA	Language model, dynamic stopping
Grigoryan, Filatov, and Kaplan	article	m-sequence	CCA	Presentation rate (30, 60, 120 Hz)
Kadioğlu, Yıldız, Closas, Fried-Oken, and Erdoğmuş	article	m-sequence	Maximum likelihood	Color (green-red), fusion of c-VEP and eye tracker
Kaya, Bohorquez, and Ozdamar	proceedings	quasi steady-state	CLAD	QSSVEP
Kaya, Bohórquez, and Özdamar	article	quasi steady-state	CLAD	QSSVEP
Kaya	dissertation			QSSVEP
Luo and Huang	proceedings	m-sequence	LDA, transfer learning	Subject-to-subject transfer
Matsuno, Itakura, Mizuno, and Mito	proceedings			frequency-hopping VEP
Nagel and Spüler	article	optimized random sequences	EEG2Code	Asynchronous, non-control state
Nagel and Spüler	article	random sequences	EEG2Code	c-VEP
Nagel	dissertation			For psychological experiments (button presses without behavior)
Peng and Huang	proceedings	m-sequence	sLDA	Fatigue
Shirzhiyan et al.	article	m-sequence, chaotic codes	CCA, spatiotemporal beam-forming	
Turi and Clerc	article	m-sequence		Static stopping number of cycles
Zhao, Wang, Liu, Pei, and Chen	article	m-sequence	FBCCA, FBTRCA	Biometrics
Zheng, Wang, Pei, and Chen	proceedings	Gold codes	TRCA	Brain switch

2018

Author(s)	Type	Stimulus	Decoding	Notes
Başaklar, İder, and Tuncel	proceedings	m-sequence		Presentation rate (60, 120, 240 Hz)
Dimitriadis and Marimpis	article	m-sequence	SVM	PAC, healthy and patients
Gembler, Stawicki, Saboor, et al.	proceedings	m-sequence	CCA	Presentation rate (60, 120, 200 Hz)
Gembler, Stawicki, Rezeika, et al.	proceedings	m-sequence	CCA	Language model
Liu, Wei, and Lu	article	Golay sequence, APA sequence	CCA	
Nagel, Dreher, Rosenstiel, and Spüler	article	m-sequence		Monitor raster latency, P300, SSVEP, c-VEP
Nagel, Rosenstiel, and Spüler	proceedings	optimized random sequences	CCA, regression	
Nagel and Spüler	article	random and optimized sequences	Ridge regression, EEG2Code	
Nezamfar, Mohseni Salehi, Higer, and Erdoganmus	article	m-sequence	RDA	Color (green-red), c-VEP versus eye tracker
Spüler and Kurek	article	m-sequence	CCA, SVM	ASSR versus c-AEP
Turi, Gayraud, and Clerc	preprint	m-sequence		Zero-training, language model
Wei et al.	article	grouping modulation, Golay complementary sequences, APA sequence	CCA	

2017

Author(s)	Type	Stimulus	Decoding	Notes
Aminaka and Rutkowski	chapter	m-sequence	CCA, SVM	Color (green-blue), 40 Hz
Isaksen, Mohebbi, and Puthusserypady	article	m-sequence, Gold code, Barker code	correlation	
Nagel, Rosenstiel, and Spüler	proceedings	m-sequence, random codes	CCA	
Spüler	article	m-sequence	CCA	Dry EEG, static and dynamic stopping
Thielen, Marsman, Farquhar, and Desain	chapter	modulated Gold codes	reconvolution, CCA	Zero-training
Wei, Gong, and Lu	article	grouping modulation, Golay sequence, APA sequence	CCA	
Wittevrongel, Van Wolputte, and Van Hulle	article	m-sequence	beamformer	

2016

Author(s)	Type	Stimulus	Decoding	Notes
Desain, Thielen, van den Broek, and Farquhar	patent	modulated Gold codes	CCA	
Isaksen, Mohebbi, and Puthusserypady	proceedings	m-sequence	Barker code, Gold code	
Nezamfar, Salehi, Moghadamfalahi, and Erdoganmus	article	m-sequence		FlashType, color (red-green), 110 Hz, language model
Riechmann, Finke, and Ritter	article	m-sequence	SVM (linear)	Color (green-red, black-white), shape, background, 120 Hz, virtual agent
Sato and Washizawa	proceedings	m-sequence	CCA, MLP, Lasso regression, Linear regression	
Thielen, Farquhar, and Desain	proceedings	modulated Gold codes	reconvolution, CCA	
Wei, Feng, and Lu	article	m-sequence	CCA	Stimulus characteristics: size (0.67, 1.7, 2.8, 3.8, 5.4, 7.1, 8.9 dva), color (white, red, green, blue, yellow), proximity (3.8, 4.8, 5.8, 6.8 dva), length (15, 31, 63, 127 bits), lag (2, 4, 6, 8, 10 bits)
Wei, Huang, Li, and Lu	article	m-sequence, Golay sequence	CCA	

2015

Author(s)		Type	Stimulus	Decoding	Notes
Aminaka, Rutkowski	Makino, and	proceedings	m-sequence	CCA	Color (green-blue, white-black), presentation rate (30, 40 Hz)
Aminaka, Rutkowski	Makino, and	proceedings	m-sequence	CCA, SVM	Color (green-blue, white-black), presentation rate (30, 40 Hz), CCA versus SVM
Aminaka, Rutkowski	Makino, and	proceedings	m-sequence	SVM	Color (green-blue, white-black), presentation rate (30, 40 Hz), pass-band optimization (6-21 Hz)
Aminaka, Rutkowski	Makino, and	proceedings	m-sequence	SVM	Color (green-blue, white-black), presentation rate (30, 40 Hz), SVM (linear, polynomial, rbf, sigmoid)
Mohebbi et al.	proceedings	Gold code		correlation	Wheelchair
Nezamfar, Salehi, and Erdogan	proceedings	m-sequence		maximum likelihood	Color (red-green, blue-yellow, black-white), presentation rate (30, 60, 110 Hz)
Sato and Washizawa	proceedings	m-sequence		correlation	Automatic repeat request
Spüler	proceedings	m-sequence		CCA, SVM	Windows applications
Thielen, van den Broek, Farquhar, and Desain	article	modulated Gold codes		reconvolution, CCA	
Waytowich and Krusienski	article	m-sequence		CCA	Foveal versus peripheral stimulation

2014

Author(s)		Type	Stimulus	Decoding	Notes
Kapeller et al.	article	m-sequence		CCA, LDA	Invasive, video application
Tu et al.	article			CSP, SVM, Naive Bayes, LDA	Color (red-green), CTVEP

2013

Author(s)	Type	Stimulus	Decoding	Notes
Bohórquez, Lozano, Kao, Toft-Nielsen, and Özdamar	proceedings	temporally jittered SSVEP	CLAD	
Kapeller et al.	proceedings	m-sequence	CCA, LDA	
Riechmann, Finke, and Ritter	proceedings	hierarchical codebook	SVM	
Spüler, Rosenstiel, and Bogdan	proceedings	m-sequence	OCSVM,	Robot, SSVEP versus c-VEP
Spüler, Rosenstiel, and Bogdan	proceedings	m-sequence	OCSVM	Color (red-green, black-white)
Spüler, Walter, Rosenstiel, and Bogdan	article	m-sequence	CCA, OCSVM	Unsupervised online calibration
Spüler, Walter, Rosenstiel, and Bogdan				Unsupervised online calibration
				c-VEP, ERN, P300, TMSEP, CCEP

2012

Author(s)	Type	Stimulus	Decoding	Notes
Nakanishi and Mitsukura	proceedings	m-sequence, periodic codes	periodicity detection	
Spüler, Rosenstiel, and Bogdan	proceedings	m-sequence	CCA, OCSVM	
Spüler, Rosenstiel, and Bogdan	article	m-sequence	CCA, OCSVM	Online unsupervised adaptation with ERN

2011

Author(s)	Type	Stimulus	Decoding	Notes
Bin et al.	article	m-sequence	CCA	
S. M. Lai, Zhang, Hung, Niu, and Chang	article			Color (red-green), CTVEP
Nezamfar, Orhan, Purwar, et al.	article	m-sequence	template matching, Bayesian fusion	
Nezamfar, Orhan, Erdogmus, et al.	proceedings	m-sequence	correlation, naive Bayes	Presentation rate (15, 30 Hz)

2009

Author(s)	Type	Stimulus	Decoding	Notes
Bin, Gao, Wang, Hong, and Gao	article	m-sequence	correlation	ERP versus SSVEP versus c-VEP

2008

Author(s)	Type	Stimulus	Decoding	Notes
Desain, Farquhar, Blankespoor, and Gielen	proceedings	Gold codes	reconvolution	Auditory
Farquhar, Blankespoor, Vlek, and Desain	proceedings	Gold codes		Auditory
Momose	proceedings	m-sequence		Hybrid P300 and c-VEP

2007

Author(s)	Type	Stimulus	Decoding	Notes
Momose	proceedings	m-sequence		

2006

Author(s)	Type	Stimulus	Decoding	Notes
Bohórquez and Özdamar	article	m-sequence	CLAD	Auditory

2002

Author(s)	Type	Stimulus	Decoding	Notes
Hanagata and Momose	proceedings			

1992

Author(s)	Type	Stimulus	Decoding	Notes
Sutter	article	m-sequence	correlation	Invasive, ALS patient

1984

Author(s)	Type	Stimulus	Decoding	Notes
Sutter	proceedings			

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