

A Complete Bibliography of Publications of Claude Elwood Shannon

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Abstract

This bibliography records publications of Claude Elwood Shannon (1916–2001).

Title word cross-reference

\$27 [Sil18]. **\$4.00** [Mur57]. 7×10 [Mur57]. H' [Siq98]. n [Sha55d, Sha93-45].
 $P/N \rightarrow \infty$ [Sha48j]. s [Sha55d, Sha93-45].

1939 [Sha93v]. **1950** [Ano53]. **1955** [MMS06]. **1982** [TWA⁺87].

2001 [Bau01, Gal03, Jam09, Pin01]. **2D** [ZBM11].

3 [Cer17].

6G [SB21].

978 [Cer17]. 978-1-4767-6668-3 [Cer17].

= [Int03].

Aberdeen [FS43]. **ablation** [GKL⁺13]. **above** [TT12]. **absolute** [Ric03]. **Abstract** [Sha55c]. **abundance** [Gor06]. **abundances** [Ric03]. **Academics** [Pin01]. **According** [Sav64]. **account** [RAL⁺08]. **accuracy** [SGB02]. **activation** [GKL⁺13]. **Active** [LB08]. **actress** [Kah84]. **Actually** [Sha53f]. **Advanced** [Mar93]. **Affecting** [Nyq24]. **After** [Bot88, Sav11]. **After-Shannon** [Bot88]. **Age** [ACK⁺01, Cou01, Ger12, Nah13, SG17, Sha02, Wal01b, Sil18, Cer17]. **A'h** [New56]. **A'h-mose** [New56]. **Aid** [Bro11, Sha78, Sha93y, SM53]. **Albert** [New56]. **alcohol** [SBS⁺13]. **Algebra** [Roc99, Sha40c, Sha93a, Jan14]. **algorithm** [Cha72, HDC96, LM03]. **alignments** [CFRC04]. **Allied** [Kah84]. **alpha** [BSWCM14]. **alpha-Shannon** [BSWCM14]. **Alphabets** [GV15]. **Alternate** [Sha44e]. **Ambiguity** [Loe59, PGM⁺12]. **America** [FB69]. **American** [Ger12, Sha78]. **among** [AALR09, Di 00]. **Amplitude** [Sha54a]. **Analogue** [Sha43a, Sha93b]. **analogues** [Gor06]. **analyses** [SBS⁺13]. **Analysis** [Sha37, Sha38, Sha93-51, Sha21, GB00, RAL⁺07, SGB02, TKL⁺12, dTS⁺03]. **analyze** [HGR⁺12]. **Analyzer** [MS53a, MS53b, MS93c, Sha93-27, Sha41d, FS43]. **Anecdotes** [TWA⁺87]. **angular** [CS09]. **Animal** [Sha49d, Sha93-41]. **Apparatus** [Sha51b]. **Apple** [Cas16]. **Applicability** [Tim02]. **Application** [AALR09, JAS89, Sha48h, TWA⁺87, WV10, FCW⁺00, POA⁺08, Rif85, SSAK06]. **Applications** [Fel66, Fel71, Fel09]. **Applied** [BLR⁺02, BLR⁺01, MBD⁺03, dTS⁺03]. **Applying** [ABS⁺13]. **Approach** [Sha48j, Sha55c, Sha93-38, BB88, LR05, Pri84, Pri85, RS06, Rog94, Wri67]. **approximation** [Koc05]. **April** [Gal03, Jam09]. **aqueous** [SGB02]. **Archimedes** [Pic08]. **architectural** [SBS⁺13]. **area** [JSMS12]. **aromaticity** [NS10]. **Articulation** [Lei07]. **artificial** [MMS06]. **Aspects** [Sha80, Sha93-44]. **assemblages** [Siq98]. **assess** [RFME⁺12]. **assessment** [BQhH08, JSMS12]. **Associative** [Bot88]. **asynchronisms** [RAL⁺07]. **atomic** [AALR09, GFD03, SK04]. **atoms** [Liu07, Sen05]. **Atrial** [LMC11, GKL⁺13]. **attack** [HN09]. **August** [MMS06]. **Austria** [Van89]. **authors** [Ano17a]. **Automata** [SM56, SM74, Sha93m, Sha93-60, SW93a, Sha53c, Sha58c, Mur57]. **Automaten** [SM74]. **Automatic** [Min95]. **Automation** [Min95, Sha63a, Sha93n]. **avoided** [GFD03]. **award** [Han10, Ano40b, Bar01, Kha16]. **Awards** [Pin01]. **B** [HGR⁺12, SW93h]. **backgrounds** [WMS⁺12]. **Backlash** [Sha41a, Sha93c]. **bacterial** [ABS⁺13]. **Ballistic** [FS43]. **Band** [Sha54a]. **Bandwagon** [Sha56a, Sha93d]. **Bandwidth** [Sha44d]. **basada** [Pla06]. **base** [JGH00].

Based [FM99, APMS⁺12, BQhH08, CFRC04, HSBJ02, Koc05, LM03, MBD⁺03, NS12, WGB09, WBB⁺12]. **Bayes** [APMS⁺12, AES17]. **Be** [Far03, Far02]. **Beautiful** [Far03, Far02]. **before** [Min02]. **Behavior** [DS46, DS93]. **behind** [Pic08]. **Beings** [Szi64]. **Bell** [Ger12, Min95]. **bellied** [dPV00]. **Berechnung** [Sha57b]. **Berkeley** [Sug13]. **Best** [Sha44a, Sha93e]. **beta** [MHBL12]. **Betting** [Sha56d]. **Between** [Min02, Kah84, Liu07, RS06, Sen21, Zha09]. **Beyond** [SB21, LP12]. **biases** [Zee02]. **Bihar** [JAS89]. **Binaire** [Loe59]. **Binary** [Bar01, Loe59, Sha54b, Sha93q, SGB02]. **Biodiversidad** [Pla06]. **Biodiversity** [Pla06]. **biographical** [Rog94]. **Biographies** [Cor87, Wei88]. **Biological** [HWO90, Ric03]. **biologist** [Sch06]. **biology** [Sch06]. **biomarkers** [APMS⁺12]. **Biopolitics** [Roc99]. **Bipolar** [GKL⁺13]. **bit** [Ale03, Ano01b]. **bold** [FFF09]. **bone** [RAL⁺08]. **Book** [Cer17, Mur57, Roc11, Tra10]. **Boole** [Nah13]. **Boolean** [Jan14]. **Bounds** [Mar08, Sha54a, Sha93w, Sha93x, SGB67a, SGB67b]. **box** [LM03]. **box-counting-based** [LM03]. **brave** [FFF09]. **breaking** [Eme01]. **Breed** [Bar01]. **Bridging** [RS06]. **brief** [Cro01]. **Building** [Hag79]. **Builds** [Bar01]. **Bush** [Sha93v, Sha39].

C [Mur57, Sug13, Wal01a, SW93i]. **Calcul** [Loe59]. **calculation** [Sha57b, Loe59]. **Calculations** [HWO90, SGB02]. **Calculator** [Sha93-42]. **calvarial** [RAL⁺08]. **cancer** [APMS⁺12]. **Candidates** [Pin01]. **Capacity** [BSWCM14, Bot88, GV15, Mar08, Sha56g, Sha56i, Sha57c, Sha93-47, Sha93-61, Sch06, Sha57b, SJ04, TT12]. **Capazität** [Sha57b]. **Case** [Hag79, Sha48a]. **cases** [Key05]. **Cathode** [PST48]. **Cathode-Ray** [PST48]. **caused** [SBS⁺13]. **Celebrating** [Zac16]. **cellular** [RFME⁺12]. **Century** [Sha93n, WL85, Sha63a]. **Certain** [Nyq24, Nyq28, Sha48f, Sha57a, Sha93f]. **chain** [Koc05]. **chain-based** [Koc05]. **chains** [ZBM11]. **Channel** [Sha48a, Sha56c, Sha56g, Sha56i, Sha57c, Sha93-36, Sha93-47, Sha93-61, Sch06, Sha57b, Sha59c]. **Channels** [Sha58a, Sha93f, Sha93g, Sha93w, Sha93x, Sha93-32, Sha93-57, POA⁺08, Sha57a, Sha58b, Sha61, SGB67a, SGB67b, TT12]. **Chaos** [Sch91]. **Characteristic** [Sen05]. **characterizing** [JGH00]. **checking** [FM99]. **chemical** [SSAK06]. **Chess** [Sha50b, Sha93h, Wha78, Lev88, Sha50g, Sha93-37]. **Chess-Playing** [Sha50b, Sha93h]. **China** [BQhH08]. **cipher** [AMS⁺10, HN09]. **Circuit** [GBR07, HS46, MS53a, MS53b, MS53c, MS93c, MS93d, Sha53j, Sha93y, SM53]. **Circuits** [FM99, MS54, MS93a, MS93b, OS44, OS93, Sha37, Sha38, Sha41b, Sha44e, Sha49f, Sha55e, Sha93-51, Sha93-48, Sha93-53, Sha21, SW93d, Jan14, MS56a, MS56b]. **Classic** [Lew21]. **classical** [SS07]. **classification** [APMS⁺12]. **Claude** [Ano01c, Cer17, Sil18, TWA⁺87, Ano40a, Ano40b, Ano00, Ano01a, Ano01b, Ano02, Bar01, Bau01, Bro11, CS01, CLM⁺01, Cou01, Ell84, Eme01, Eph01, Gag98, Gal01, Gal03, Gol01, GBC⁺02, Gui03, Han10, Hor90, Hor92, Hor11,

Jam09, Joh01, Kha16, Lew01, Nah13, NWV94, O'R12, Pin01, Pri82, Pri84, Pri85, Roc10, Roc11, RHQ⁺16, Sch06, Sha82a, Sha02, Sha14, Sla97, SW93k, SW93l, SW93b, SG17, SF03, SK01, Str14, Van89, Wal01b, Zac16]. **Closing** [Gui04]. **Closure** [Sha44c]. **Clustering** [DGH⁺06]. **coasts** [YLR⁺10]. **Cobol** [Bar01]. **Code** [Loe59, OS46, Sha43b, Gui04, Wri67]. **Codes** [Sha93-36, Gui04, Sha59c]. **Coding** [Bot88, Gol49, Sha40a, Sha48a, Sha53d, Sha54b, Sha55c, Sha59a, Sha59b, Sha60, Sha93f, Sha93i, Sha93q, Sha93s, Sha93w, Sha93x, Sha93-38, TWA⁺87, Sha57a, SGB67a, SGB67b, WMS⁺12, Zee02]. **codon** [FMSS03, Zee02]. **coherence** [LMC11, YN11]. **coherent** [RM06, YN11]. **cold** [Sen21]. **collected** [SW93k]. **Collection** [Bro11]. **Colleges** [HS54, HS93]. **colon** [APMS⁺12]. **Color** [Sha40a]. **Coloring** [Sha93-54, Sha49g]. **Combining** [Gor06]. **Communication** [Hag79, OS46, Sha48b, Sha48c, Sha48h, Sha49a, Sha49b, SW49, Sha49d, Sha50f, Sha50i, Sha53a, Sha53b, SW63, SW71, SW76, SW83, Sha84a, Sha84b, Sha85, Sha93j, Sha93k, Sha93l, Sha93z, Sha93-32, Sha93-41, Sha93-40, Sha93-57, Sha97, Sha98b, Sha98a, SW98, Sha01, SW93c, Wea49, Wea53, Lyn77, Rog94, Sha58b, Sha61, SW64, SW69, SW72, SW75b, SW75a, SW78, SW81, Sla97, TT12, Yoc00, dPV00, Doo49]. **Communications** [Ano01c, Ano01b, Kah84, SB21]. **Comparison** [GWZC12]. **comparisons** [AALR09]. **compendium** [Lev88]. **complete** [CHC⁺04, CHC⁺05]. **complex** [RFME⁺12, SSAK06]. **complexity** [LR05, SBS⁺13]. **component** [TKL⁺12]. **Components** [Sha56f]. **Compound** [WVB10]. **compounds** [SGB02]. **Computability** [dLMSS54, dLMSS56, dLMSS93]. **Computable** [HSS23]. **Computation** [Bar01, Sha50j, Sha93-42, Ric03, Zee02]. **Computer** [Lap96, Lev88, Lew21, Wha78, Bro00a, Sha50g, Sha93-37, Smi05, WL85, Pin01, Sha50j]. **Computers** [Sha53c, Sha53h, Sha63a, Sha93m, Sha93n, Sha93-33, SW93d, Sug13]. **Computing** [Bul15, DM15, Sha85, Wal01a, LM03, Min02]. **comunicación** [SW81]. **comunicazioni** [SW71, SW83]. **Concavity** [Sha55b, SH56, Sha93o, Sha93p]. **concept** [GB00]. **Concepts** [Som09]. **conceptual** [Ell09, Tim03]. **Conceptualization** [Asp85]. **concerning** [Tho09]. **confidence** [MHBL12]. **confidentiality** [Gag98]. **configuration** [WBB⁺12]. **confined** [Sen05]. **Congress** [Bro11]. **Connected** [DS46, DS93, Sha07]. **Connection** [Pin01]. **Connections** [AES17]. **connectivity** [RFME⁺12]. **conservation** [BQhH08]. **Consistency** [Sha41b]. **Contacts** [Sha53i, Sha93-39]. **Content** [WVB10, Rif85]. **context** [CLM⁺01]. **continued** [Sha48c]. **Continuous** [Sha43a, Sha93b]. **contribution** [RHQ⁺16]. **Contributions** [Sha93-60, Wea53, Sha58c]. **Control** [BBS46, Min95, Sha49d, Sha51b, Sha93-41, Min02]. **Controversies** [Bar01]. **Convergence** [GV15]. **conversation** [Ell84, Pri84, Pri85]. **Corporation** [Pin01]. **correcting** [Wri67]. **correlation** [RD04]. **cost** [Kra21]. **Counters** [Sha44b]. **Counting** [Ell09, Kör96, Sha44b, Sha44e, Koc05, LM03]. **Created** [Lew21, Nah13]. **Creative** [Sha52a]. **Criteria** [Sha41b]. **Criterion**

[Sha59b, Sha93i, Sha60]. **critical** [ZBM11]. **Crossbar** [HS46]. **crossings** [GFD03]. **Crossword** [Efr08]. **Crummy** [MS54]. **Cryptography** [Roc99, Sha45a, SW93c, BB88]. **Cryptology** [Kah84, Roc99]. **crystalline** [SBS⁺13]. **CSIDC** [Pin01]. **Cubic** [BERS86]. **Cubics** [Sha82b]. **Cybernetics** [DL63, Sha49d, Sha68a, Min02, Sha93-41].

Dartmouth [MMS06]. **Data**

[BSWCM14, BBS46, Cor87, Sha41c, WVVB10, Bla65, LCW⁺16, LHA⁺16].

data-smoothing [Bla65]. **database** [GB01]. **Datalog** [KNS17].

Daubechies [JZL98]. **Days** [Bul15]. **Decomposition**

[GBR07, LB08, MHBL12]. **Decrease** [Szi64]. **deep** [HGR⁺12]. **Deflection**

[Sha41f, Sha41e, Sha93-50, Sha93-46]. **degree** [ABS11, YN11]. **Delay**

[Sha56c]. **Delsarte** [AL07]. **demon** [Kra21]. **Demonstrates** [Sha14].

demonstrating [LHA⁺16]. **Demonstration** [Sha14]. **densities**

[AALR09, Liu07]. **Dependent** [WVVB10]. **Derivation** [BS50, BS93].

Derivatives [Sha54a]. **Description** [Sha50j, Sha93-42]. **Descriptor**

[WVVB10, GB00]. **descriptors** [GB01, GPM06, SGB02]. **Desflurane**

[BLR⁺02, BLR⁺01]. **Design** [FM99, Sha42, Sha93y, Sha93-55, SM53].

Detection [Sha44a, Sha93e, HSBJ02, HTR⁺08, LMC11]. **detectors**

[WBB⁺12]. **detects** [CFRC04]. **Determinate** [Sha45b]. **determined**

[YLR⁺10]. **Deutung** [Sha57b]. **developed** [Kah84]. **Development**

[Sha85, Sle74]. **Developments** [Sha50f, Sha50i, Sha93-40]. **Device** [PST48].

diagnosis [TKL⁺12]. **diagnostic** [Rif85]. **diatom** [Siq98]. **Dictionary**

[Cor87]. **Dies** [Ano01a, Bar01, Joh01, Ano01c]. **difference** [Sen21].

differences [GB01]. **Differential**

[GB01, Sha41g, Sha42, Sha93-27, Sha93-55, SGB02, Sha41d]. **Difficulty**

[Efr08]. **diffusion** [LS10]. **Digital** [ACK⁺01, Ano01c, Bul15, Cou01, Gol49,

LP12, Sha50c, Ano01b, Cer17, Eme01, HDC96, Cas16, Wal01b]. **dimension**

[RAL⁺08, SBS⁺13]. **Dimensional** [Sha78, GWZC12, SJ04]. **dimensionality**

[CS09, POA⁺08]. **Diorama** [Sha82a, SW93b]. **Director** [Zor89, Pin01].

Director-Elect [Pin01]. **discipline** [Mat94]. **Discrete**

[Sha48g, Sha59a, Sha59b, Sha93i, Sha93w, Sha93x, Sha60, SGB67a, SGB67b].

Discussion [CMU⁺53, CMU⁺93]. **Disjunctive** [KNS17]. **distinctions**

[Ell09]. **distinguish** [WMS⁺12]. **distinguisher** [AMS⁺10]. **distinguishing**

[HN09]. **Distortion** [Sha59a]. **distribution** [Di 00, NS12]. **Distributions**

[WVVB10, AALR09, GPM06]. **Divergence** [CCHL05, MPPP97]. **divergences**

[AALR09]. **diversity** [BQhH08, BKU⁺94, De'12, Di 00, GB00, Gor06, ID00,

Key05, MHBL12, Ric03, RS06, Siq98, SF03]. **Division** [Pin01]. **Djingis**

[NWV94]. **DNA** [Bar01, Zha09]. **Do** [KNS17, dR55]. **Doppler** [HTR⁺08].

Down [Sha44b]. **Dr.** [Bre63]. **Dream** [Wal01a]. **Dretske** [Lom05]. **Driver**

[Sha78]. **Drop** [Sha82a, SW93b]. **drug** [FCW⁺00]. **during** [Kah84, RAL⁺08].

dynamical [RAL⁺07]. **dynamics** [Let06, LM03].

E100 [LS35]. **E58** [SSS34]. **Early** [Bul15, Sha14]. **earth** [Yoc00]. **eco**

[RHQ⁺16]. **eco-evolutionary** [RHQ⁺16]. **Economic** [BQhH08]. **edited** [Mur57]. **Editorial** [Sha56a, Sha84b]. **Edmund** [Sug13]. **Education** [Hig63]. **educator** [Sug13]. **EEG** [BLR⁺02]. **effect** [HGR⁺12]. **effectiveness** [Jan14]. **Effects** [BLR⁺02, BLR⁺01]. **Efficient** [Sha48a, Sha54b, Sha93q]. **einem** [Szi29]. **Eingriffen** [Szi29]. **einiger** [Sha57b]. **Einstein** [Ano00, Kov20, New56, Per05, Sen21]. **Elect** [Pin01]. **electric** [GFD03]. **Electrical** [Ano40b, MS53a, WL85]. **electroencephalographic** [BLR⁺01]. **electrogram** [GKL⁺13]. **electron** [GWZC12, RD04]. **Electronic** [Sha46]. **element** [BKU⁺94]. **Elementary** [LS35, SSS34]. **eleven** [Sha07]. **Elwood** [Bau01, Bro11, Gal03, GBC⁺02, Jam09, SW93k, SW93l]. **EMC** [Pin01]. **Employing** [OS46]. **enabled** [WMS⁺12]. **Encounter** [Kov20]. **encryption** [Gag98]. **engineer** [Nah13]. **Engineering** [Cer88, Hag79, FFF09, Smi05, WL85]. **Engineers** [Ano40b, Kah84, Tra10, Jam10]. **England** [Sha78]. **English** [Sha51a, Sha93-34]. **Enigma** [Ano16, LHA⁺16]. **Ensembles** [Sha48e]. **entanglement** [POA⁺08, ZBM11]. **entropic** [NS12]. **entropies** [APMS⁺12, GWZC12, LR05, WMS⁺12, ZBM11]. **Entropieverminderung** [Szi29]. **Entropy** [BLR⁺02, GB01, GV15, HGR⁺12, JSMS12, LMC11, PGM⁺12, RFME⁺12, Sav64, Sha51a, Sha93-34, Szi64, WVB10, ABS11, BLR⁺01, CFRC04, FMSS03, FCW⁺00, GKL⁺13, GB00, GFD03, GPM06, HTR⁺08, Key05, Koc05, Let06, Liu07, LM03, MHL12, Mat94, NS12, NS10, PP06, RAL⁺07, RM06, Ric03, RS06, RAL⁺08, SSK⁺05, Sen05, SK04, SS07, SBS⁺13, SGB02, SD96, Szi29, Szi76, TKL⁺12, WGB09, YN11, Zha09, dPV00, dTS⁺03]. **entropy-based** [CFRC04, WGB09]. **Entropy-TOPSIS** [JSMS12]. **Entstehung** [Hag79]. **Environmental** [YLR⁺10, JSMS12]. **Equation** [Sha42, Sha93-55]. **Equations** [Far03, FS43, Ale03, Far02]. **erasure** [Kra21]. **Ergebnisse** [Sha57b]. **Ergodic** [Sha48e]. **Error** [Sha56c, Sha56i, Sha93w, Sha93x, Sha93-36, Sha93-61, Sha59c, SGB67a, SGB67b, Wri67]. **error-correcting** [Wri67]. **Errors** [Mar08]. **essential** [Gui03]. **Estimates** [Sav64]. **Estimating** [Let06]. **Estimation** [BSWCM14]. **Europe** [FB69]. **evenness** [YLR⁺10]. **event** [dTS⁺03]. **event-related** [dTS⁺03]. **evidence** [Tho09]. **evolution** [HGR⁺12]. **evolutionary** [RHQ⁺16]. **Exact** [Cro63]. **Exam** [NWV94]. **Exchange** [Sha50d, Sha93-28]. **expected** [ABS11]. **experiment** [YN11]. **Experimental** [LCW⁺16, Sha41e, Sha93-46]. **Experimentally** [LHA⁺16]. **Expert** [Bar01, NWV94]. **explains** [Sen21]. **Explicit** [Sha53f]. **Exploring** [RHQ⁺16]. **Exposition** [Sha53a, Sha53b, Sha93k]. **expression** [SGG04]. **extension** [BB88].

Factors [Nyq24]. **factory** [Ger12]. **Fair** [Pin01]. **Fallstudie** [Hag79]. **Fast** [GV15]. **Father** [Ano98, Ano01a, Hor90, Sha02, Wal01b, Hor11]. **fear** [NWV94]. **feature** [GPM06]. **features** [SSK⁺05, Sen05]. **February** [Gal03, Jam09, Sha93v]. **Feedback** [Sha44c, Min02]. **female** [Di 00]. **Fibrillation** [LMC11, GKL⁺13]. **Fidelity** [Sha59b, Sha93i, Sha60]. **fields**

[GFD03, dR55]. **Fifty** [Ver98]. **filter** [CFRC04]. **Finders** [Sha41f, Sha93-50]. **Finding** [Bro11]. **Finds** [Bar01]. **Fine** [LB08]. **Fine-grained** [LB08]. **Finest** [Min95]. **fingerprint** [WGB09]. **Finite** [SK04, YCS12]. **Fire** [BBS46]. **Fire-Control** [BBS46]. **First** [Bre63, Hor11, Ric03]. **Fisher** [AALR09, AES17, HTR⁺08, Liu07, RD04, YCS12]. **Flaw** [Bar01]. **Flow** [EFS56, EFS93, CSJJ10]. **flowmetry** [HTR⁺08]. **fluctuations** [RM06]. **fMRI** [dTTS⁺03]. **foray** [Cro01]. **Forecaster** [Sha56e]. **forest** [BQhH08]. **Formal** [Som09]. **Formula** [BSWCM14, Sha50h]. **formulate** [Sch06]. **Foundational** [Tim02]. **foundations** [Ano01b, Ell09]. **Founder** [Ano01c, Sch06]. **Four** [DS46, DS93]. **Four-Terminal** [DS46, DS93]. **Fourier** [JGH00]. **Fourth** [Sha78]. **Fourth-Dimensional** [Sha78]. **Fractal** [SBS⁺13, RAL⁺08]. **Fractals** [Sch91]. **fractional** [CS09]. **Framework** [All04]. **free** [SS07]. **French** [Loe59, SW75a]. **Frequencies** [PGM⁺12]. **Fresnel** [LP12]. **fridge** [Sen21]. **Frontiers** [SG18]. **Frontmatter** [SW93e]. **Function** [Sha55b, Sha93p, LMC11]. **Functional** [FM99]. **Functions** [Sha48e, Sha53i, Sha55d, SH56, Sha93o, Sha93-39, Sha93-45]. **Fundamentals** [Sha53a, Sha53b, Sha93k]. **Funding** [Pin01]. **Future** [Lew21].

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Mathematische [SW76]. **Mathematization** [Roc99]. **Mathmanship**

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