

INDEX

- Absorption, Resonant 153-154,
187-188, 245-248.
- Acceleration
 Particle 14, 271, 360, 375,
 381,391-400,415-426, 438,
 448,452-453
 Stochastic 375
- Acoustic
 Heating 197, 231-234
 Waves 23, 149-155, 187, 190-
 201, 239-242, 264
- Active Region 489-492
- Alfvén
 Mach Number 279, 283
 Point 69
 Waves 209, 223-228, 237,
 240, 245-248, 258, 262,
 266, 375, 385, 448
- Angular Momentum 67-76
- Anomalous Resistivity 12-13
- Antenna Radiation 367-369
- Arcade, Magnetic 358
- Aurora 11-16
- Beam
 Foil Spectroscopy 439-440
 Plasma Instability 383-388
- Betatron Acceleration 416
- Bifurcation 136, 140, 142
- Boussinesq Approximation 42,
135, 140
- Braided Magnetic Field 306
- Bremsstrahlung 484, 501
- Bright Points 198-202
 X-ray 273, 285
- Buoyancy, Magnetic 42, 51, 57,
58, 286
- Calcium K line 261
- Cancelling Magnetic Feature 284,
286
- Centrifugal Wind 70
- Chaos 42, 142
- Characteristic 283
- Chromosphere, Stellar 233
- Chromospheric Heating 197-203
- Cloud, Magnetic 333
- Coalescence 350
- Comet 479-484
- Conduction, Thermal 84
- Convection 24
 Zone 27-29, 39-45, 52, 60-61,
 129, 231
- Core, Solar 29-31, 56
- Coriolis Force 52, 60-61
- Corona 253-254, 272, 309, 313
- Coronal Heating 67, 97, 195-268,
272, 285, 313
 Hole 97, 259, 450-451
 Loop 160, 166-167, 256-257,
 303-306, 350, 502
 Mass Ejections 273, 331, 450-
 451, 495-500
- Corotation 68-69
- Cosmic Rays 259-260, 415-419
- Current
 Dissipation 207-212
 Limitation 12-15
 Sheet 303, 309, 335, 341-344,
 359
- Cycle, Solar 46, 101-110, 119-
122, 262
- Cyclotron
 Emission 484
 Instability 422
- Damping
 Landau 241-244, 376
 Radiative 154, 176-179, 232,
 239-242
- Decimetric Spike 372
- Dielectric Recombination 403
- Differential Rotation 51, 56-57,
109-110, 128
- Diffusion
 Eddy 39
 Turbulent 54
- Dissipation
 Magnetic 77-78, 274
 Resistive 216, 223
- Double Layer 11-14, 365
- Dynamo 42-56, 61-64, 67, 71, 73,
129, 530
 Number 46
- Eclipse 251-254
- Eddy
 Conductivity 41

- Diffusion 39
- Einstein 81
- Element, Magnetic 198
- Emerging Flux 59-61, 273, 285-287
- Emission Measure 325, 405-407
- Energy, Magnetic 313-317
- Enstrophy 127-128
- Equation
 - Fokker-Planck 392, 394
 - Of State 27
- EUV lines 403-407
- Evaporation 360
- Exosat 81-82
- Explosive Instability 180-181, 184, 312-316

- Fast-Mode Shock 299, 516
- Five-Minute Oscillation 56
- Flare
 - Impulsive Phase 391-400
 - Negative 79
 - Solar 77-89, 271, 287, 293-300, 319, 323, 332, 353-454, 504
 - Stellar 77-89, 372
 - Thermal 417
 - Two-Ribbon 87
- Flux Tube, Magnetic 57-61, 137-194, 239-242
- Fokker-Planck Equation 393, 394
- Force-Free Magnetic Field 144, 303-306, 313-317, 323
- Frozen-in Field 15
- Gamma Rays 360, 391, 396-397, 421-426
- General Relativity 95-96
- Giant Cell 61, 128-132, 356
- Granulation 40, 125-132, 165, 193
- Gravitational Waves 62, 200

- Hard X-Rays 360-361, 391, 395, 421-426, 445
- Heating
 - Chromospheric 195-201
 - Coronal 67, 97, 195-268, 272, 285, 313
- Helicity, Magnetic 129, 210, 215, 217, 256-257
- Helium Abundance 24
- Helioseismology 23-32, 45, 56, 528

- Ideal MHD Stability 314, 341
- Ion Cyclotron Instability 452-453
- Ionosphere 11-12
- Inertial Range 126
- Instability
 - Beam Plasma 383-388
 - Explosive 180-181, 184, 313-316
 - Ion Cyclotron 452-453
 - Parametric Decay 519
- Interferogram 251-252
- Interior, Solar 21-64, 530
- Interplanetary
 - Medium 259, 332, 334, 343, 479-484, 467-479
 - Scintillation 332
- Inverse Cascade 125-127

- Kink Mode 161-163, 169-170, 175-181

- Landau Damping 239-242, 376
- Langmuir Turbulence 467-479
- Late-Type Stars 231-232
- Line
 - Calcium K 261
 - EUV 403-407
 - X-Ray 403-407
 - Tying 298, 309, 342

- Magnetic
 - Arcade 358
 - Braking 67-76
 - Buoyancy 42, 51, 57, 58, 286
 - Cloud 333
 - Dissipation 77-78, 274
 - Elements 198
 - Energy 313-317
 - Feature, Cancelling 284, 286
 - Field, Braided 306
 - Field, Force-Free 144, 303-306, 313-317, 323
 - Field, Frozen-In 15
 - Field, Sheared 309, 319, 323, 333, 345, 355-358
 - Field, Solar 484-486
 - Flux Tube 57-61, 137-194, 239-242
 - Flux Tube, Thin 167-171
 - Helicity 129, 210, 215, 217, 256-257
 - Island 346
 - Reconnection 245-248, 271-300, 316, 337, 350, 360, 516, 531
- Magnetoconvection 42-43, 135, 139-147, 530
- Magnetograph 284, 319
- Magnetopause 11
- Magnetosphere 10-12, 365, 372
- Magnetotail 11
- Maser 366, 369-371
- Maunder Minimum 46

- Mean Field Theory 45-48
 Meridional Flow 101-104
 Mesogranulation 132
 Metastability 313-316
 MHD
 Stability 314, 341
 Turbulence 215-219, 375-381
 Waves 153, 159-190, 262
 Microwaves 398, 457-463
 Mixing Length 24, 39-42
 Mode
 Kink 161-163, 169-170, 175-181
 Sausage 161-164, 176, 180
 Model, Solar 24, 30-31, 56
- Negative
 Energy Wave 178-181
 Flare 79
 Neutrinos 30-31, 35-38, 63-64, 528
 Neutron Star 62, 93
 Nonlinear Wave 175-185, 237, 258
 Number
 Alfvén Mach 279, 283
 Dynamo 530
 Rayleigh 41-43, 136, 142
 Reynolds 42
 Nusselt 43
- Oscillation
 Five-Minute 56
 Solar 23-32, 45, 56, 528
 Overshooting Convection 40-42
- p-Modes 149-155, 187-188
 Parametric Decay Instability 519
 Particle Acceleration 14, 271, 360, 375-381, 391-400, 415-426, 438, 448, 452-453
 Shock 376
 Penumbra 114, 144-146
 Penumbral Wave 166
 Petschek Mechanism 274-279
 Phase Mixing 208
 Photosphere 99-194
 Photospheric Line-Tying 298, 309, 342
 Plasma
 Stellar 65-98
 Sheet 11
 Plasmoid 331-337
 Polarization 485
 'Post'-Flare Loop 350
 Prominence 101-104, 286, 293-300, 325-328, 341, 347, 503
 Eruption 293-300, 331
- Proton Beam 383-388
- Radiation 365, 391-400
 Antenna 367-369
 Radiative Damping 154, 176-179, 232, 239-242
 Radio
 Burst 361
 Type I 372
 Type II 495-500
 Type III 383-388, 392, 467-479, 509-512, 525
 Type IV 495-500, 515-516
 Emission 82, 455-526
 Rayleigh Number 41-43, 136, 142
 Reconnection
 Magnetic 245-248, 271-300, 316, 337, 350, 360, 516, 531
 Submergence 284-285
 Red Giant Stars 233-234
 Resistive Dissipation 216, 223
 Resistivity, Anomalous 12-13
 Resonant
 Absorption 153-154, 187-188, 245-248
 Scattering 155
 Reynolds Number 42
 Running Penumbral Wave 166
- Sausage Mode 161-164, 176, 180
 Scattering, Resonant 155
 Seismology, Sunspot 149-155
 Separatrix 280
 Selective Decay 210
 SHASTA 298
 Shear Flow 178-180
 Sheared Magnetic Field 309, 319, 323, 333, 345, 355-357
 Shock Acceleration 376
 Shock Wave 231-233, 274, 283, 299, 331-332, 337, 359, 516
 Fast Mode 299, 516
 Skumanich Law 73
 Solar Core 29-31, 56
 Solar Cycle 46, 101-110, 119-122, 261
 Eclipse 251-254
 Flares 77-89, 271, 287, 293-300, 319, 323, 332, 353-454, 504
 Interior 21-64, 530
 Magnetic Field 484-486
 Maximum Mission 394-397, 454, 501-505
 Model 24, 30-31, 56
 Oscillations 23-32, 45, 56, 528
 Prominence 101-104, 286, 293-300, 325-328, 341, 347, 503

- Wind 259, 332, 334, 343, 479-484, 467-479
- Solitary Wave 237
- Soliton 130-131, 171, 181
- Sound Waves 149-155, 187-188, 239-242, 264
- Spicule 255, 285
- Spin-Down 73
- Stability, Ideal MHD 314, 341
- Standard Solar Model 24, 30-31, 56
- Star
 - Late-Type 231-232
 - Neutron 62, 93
 - Red Giant 233-234
- Stellar
 - Chromosphere 233
 - Flares 77-89, 372
 - Plasmas 65-98
 - Wind 67-70
- Stochastic Acceleration 375
- Stochasticity 208-209
- Stokes Parameters 93
- Sunspot 43, 107-121, 139-155, 160, 187-191, 264, 356
 - Cycle 46, 101-110, 119-122, 261
 - Seismology 149-155
- Supergranulation 40, 127-132, 198-200, 356-357
- Supernova 64
- Surface Wave 162-164, 170, 237-248, 262
- Surge 435-437

- Temperature Minimum 198
- Thermal
 - Bremsstrahlung 484, 501
 - Conduction 84
 - Flare 417
- Thin Flux Tube 167-171
- Topological Dissipation 208
- Transition Region 325-328
- Turbulence 126-127, 208-210, 355, 359-361
 - Langmuir 467-479
 - MHD 215-219, 375-381
- Turbulent Diffusion 54
- Two-Ribbon Flares 87
- Type
 - I Radio Burst 372
 - II Radio Burst 495-500
 - III Radio Burst 383-388, 392, 467-479, 509-512, 525
 - IV Radio Burst 495-500, 515-516

- Unipolar Regions 101-104

- Viscous Dissipation 216
- VLA 82, 395, 457-463, 489-492, 501-505, 525

- Wave
 - Action 266
 - Acoustic 23, 149-155, 187-188, 200-201, 240-243, 264
 - Alfvén 209, 223-228, 237, 240, 245-248, 258, 262, 266, 375, 385, 448
 - Gravitational 62, 200
 - MHD 153, 159-191, 262
 - Negative Energy 178-181
 - Nonlinear 175-185, 237, 258
 - P-Mode 149-155, 187-188
 - Running Penumbra 166
 - Shock 231-232, 274, 283, 299, 331-332, 337, 359, 516
 - Solitary 237
 - Sound 239-242
 - Surface 162-164, 170, 237-248, 262
- Wave-Particle Interaction 423
- Whistlers 515-516
- Wind, Stellar 67-70
- X-Rays
 - Hard 360-361, 391, 395, 421-426, 445
 - Lines 403-407
 - Bright Points 273-285
- X-Rays 409-413

- Umbra 114, 140-143, 189-191
- Umbral Dot 142