

Variable-conductance heat pipe radiator for MAROTS-type communication spacecraft. C.J. Savage, B.G.M. Aalders, and H. Kreeb (JSR) 176

Spacecraft Testing, Flight and Ground

Development of a multipurpose radiometer. Reagan S. Redman and Calvin M. Wolff (JSR, EN) 350
Electron bombardment thruster field and particle interfaces. David C. Byers (JSR, SP) 289
Flight results on structural dynamics from Hermes. S.C. Garg, P.C. Hughes, R.A. Millar, and F.R. Vigneron (JSR) 81
Present capabilities and extension possibilities of the Spacelab thermal control system. E. Vallerani, P.L. Degli Esposti, and B. Sessions (JSR) 405
Space shuttle orbiter and aerodynamic testing. Paul M. Siemers III and Terry J. Larson (JSR) 223

Space Station Systems, Manned

Traveling between the Lagrange points and the moon. R. Broucke (JGC) 257

STRUCTURAL MECHANICS AND MATERIALS

Aeroelasticity and Hydroelasticity

Accurate numerical evaluation of modified Struve functions occurring in unsteady aerodynamics. R.N. Desmarais (JA) 441
Active external store flutter suppression in the YF-17 flutter model. E. Nissim and I. Lottati (JGC) 395
Aeroelastic stability analysis of the AD-1 manned oblique-wing aircraft. Michael J. Rutkowski (JA) 401
Aeroelastic stability and response of horizontal axis wind turbine blades. S.B.R. Kottapalli, P.P. Friedmann, A. Rosen (AIAA J) 1381
Aeroelasticity research for turbomachine applications. Sanford Fleeter (JA) 320
Aeroservoelastic encounters. Larry R. Felt, Lawrence J. Huttshell, Thomas E. Noll, and Dale E. Cooley (JA) 477
Calculation of eigenvalue and eigenvector derivatives for algebraic flutter and divergence eigenproblems. C. Cardani and P. Mantegazza (AIAA J) 408
Calculation of rotor impedance for articulated-rotor helicopters in forward flight. Kanichiro Kato and Takashi Yamane (JA) 470
Calculation of rotor impedance for hovering articulated-rotor helicopters. Kinichiro Kato and Takashi Yamane (JA) 15
Comment on "Active flutter control using generalized unsteady aerodynamic theory." Ranjan Vepa (JGC, TC) 446
--Reply by authors to R. Vepa. John W. Edwards, John V. Breakwell, and Arthur E. Bryson Jr. (JGC, TC) 447
Computational scheme for structural influence coefficients of certain planar wings. John Elliott Moore Jr. and Malcolm A. Cutchins (JA) 315
Control law synthesis for active flutter suppression using optimal control theory. Jerry R. Newsom (JGC) 388
Demonstration of aircraft wing/store flutter suppression systems. Chintsun Hwang, Bertil A. Winther, George R. Mills, Thomas E. Noll, and Moses G. Farmer (JA) 557
Dynamic response of axisymmetric solids subjected to impact and spin. Gordon R. Johnson (AIAA J) 975
Dynamics of a fluid conveying fiber-reinforced shell. D.B. Muggeridge and T.J. Buckley (AIAA J, TN) 663
Effects of dynamic aeroelasticity on aircraft handling qualities. Robert L. Swaim and Wen-Yo Yen (JA, EN) 635
Efficient structural resizing procedure for meeting static aeroelastic design objectives. Edwin Lerner and Joel Markowitz (JA) 65
Elementary explanation of the flutter mechanism with active feedback controls. Hidetsugu Horikawa and Earl H. Dowell (JA) 255
Examination of the flap-lag stability of rigid articulated rotor blades. K.R.V. Kaza and R.G. Kvaternik (JA) 876
Finite-element solution of the supersonic flutter of conical shells. Maher N. Bismarck-Nasr and Hely R. Costa Savio (AIAA J, TN) 1148
Flexural vibration of orthotropic cylindrical shells in a fluid medium. D.B. Muggeridge and T.J. Buckley (AIAA J, TN) 1019
Hypersonic aerothermoelastic characteristics of a finned missile. L.E. Ericsson, B.O. Almroth, and J.A. Bailie (JSR) 187
Numerical prediction of typical articulated rotor impedance. Kanichiro Kato and Takashi Yamane (JA, SYN) 417
On the transonic-dip mechanism of flutter of a sweptback wing. Koji Isogai (AIAA J, TN) 793
Rebuttal to reply by author to "Comment on 'Flutter of flat finite element panels in a supersonic potential flow'." William P. Rodden (AIAA J, RF) 446
--Reply by author to rebuttal by W.P. Rodden. T.Y. Yang (AIAA J, RF) 448
Single-degree-of-freedom flutter induced by activated controls. E. Nissim and I. Lottati (JGC) 402

Stability of inviscid shear flow over flexible membranes. Wilson C. Chin (AIAA J, TN) 665
Theoretical technique for analyzing aeroelastic stability of bearingless rotors. Dewey H. Hodges (AIAA J) 400
Unsteady aerodynamic modeling for arbitrary motions. John W. Edwards, Holt Ashley, and John V. Breakwell (AIAA J) 365
Visualization of quasiperiodic flows. Robert A. Kadlec and Sanford S. Davis (AIAA J) 1164

Materials, Properties of

Behavior of partially metallized Kapton for spacecraft charging control. Paul A. Robinson Jr. (JSR) 104
Bubble behavior during solidification in low gravity. John M. Papazian, Robert Gutowski, and William R. Wilcox (AIAA J) 1111
Contamination design analysis approach for Spacelab. L.E. Bareiss (JSR) 394
Coupled thermomechanical effects in high solids propellant. Tieh-Ying Lee (AIAA J, TN) 1015
Effect of internal heat transport on the thermal migration of bubbles. John M. Papazian and Robert L. Kosson (AIAA J, TN) 1279
Effects of purity on fatigue and fracture of 7XXX-T76511 aluminum extrusion. J.M. Van Orden, W.E. Krupp, E. Walden, and J.T. Ryder (JA) 327
Low-pressure diffusion bonding of titanium. J.F. Kenney and C. Deminet (JSR) 88
New law for crack propagation in solid propellant material. G. Langlois and R. Gonard (JSR) 357
Screening of liquids for thermocapillary bubble movement. William R. Wilcox, R. Shankar Subramanian, John M. Papazian, Harry D. Smith, and Douglas M. Mattox (AIAA J, TN) 1022
Secondary bonding of carbon/carbon composites. H.O. Davis (JSR) 432
Shear properties of promising adhesives for bonded joints in composite material structures. D.L. Flaggs and J.R. Vinson (JA) 51

Structural Composite Materials

Application of brittle coatings to graphite fiber-reinforced plastics. R. Prabhakaran (AIAA J, TN) 110
Asymmetric vibrations of polar orthotropic laminated annular plates. Isaac Elishakoff and Yehuda Stavsky (AIAA J) 507
Buckling of imperfect anisotropic circular cylinders under combined loading. M. Booton and R.C. Tennyson (AIAA J) 278
Design-to-cost with advanced composites and advanced metallics. Leonard Ascani and Leslie Lackman (JA) 714
Dynamics of a fluid conveying fiber-reinforced shell. D.B. Muggeridge and T.J. Buckley (AIAA J, TN) 663
Fatigue failure of multidirectional laminate. Assa Rotem (AIAA J) 271
Flexural vibration of orthotropic cylindrical shells in a fluid medium. D.B. Muggeridge and T.J. Buckley (AIAA J, TN) 1019
General panel sizing computer code and its application to composite structural panels. Melvin S. Anderson and W. Jefferson Stroud (AIAA J) 892
Impact induced stresses waves in an anisotropic plate. Byoung Sung Kim and Francis Moon (AIAA J) 1126
Numerical and experimental comparison of the notch tip stresses in a laminated plate. W.P. Witt III, A.N. Palazotto, and H.T. Hahn (AIAA J) 500
Optimum design of laminated plates under axial compression. Yoichi Hirano (AIAA J, TN) 1017
Preliminary design of composite wings for buckling, strength, and displacement constraints. James H. Starnes Jr. and Raphael T. Haftka (JA) 564
Repair concepts for advanced composite structures. S.H. Myhre and C.E. Beck (JA) 720
Secondary bonding of carbon/carbon composites. H.O. Davis (JSR) 432
Shear correction factors for laminated plates. Sailendra N. Chatterjee and Satish V. Kulkarni (AIAA J, SYN) 498

Structural Design

Aiming an electromagnetic beam by bending segments of a large reflecting surface. David Bushnell (AIAA J) 413
Analysis of cracked, adhesively bonded laminated structures. M.M. Ratwani (AIAA J) 988
Applicability of an asymptotic expansion for elastic buckling problems with mode interaction. Esben Byskov (AIAA J) 630
Calculation of eigenvalue and eigenvector derivatives for algebraic flutter and divergence eigenproblems. C. Cardani and P. Mantegazza (AIAA J) 408
Comment on "Optimal weighted orthogonalization of measured modes." A. Berman (AIAA J, RF) 927
--Reply by authors to A. Berman. Menahem Baruch and Itzhack Y. Bar Itzhack (AIAA J, RF) 928

- Comparison of optimality criteria algorithms for minimum weight design of structures. N.S. Khot, L. Berke, and V.B. Venkayya (AIAA J) 182
- Control of surface configuration by application of concentrated loads. David Bushnell (AIAA J) 71
- Control of surface configuration of nonuniformly heated shells. David Bushnell (AIAA J) 78
- Cost-effective use of minicomputers to solve structural problems. Olaf O. Storaasli and Edwin P. Foster (JA) 775
- Cutout reinforcement of stiffened cylindrical shells. J.A. Cervantes and A.N. Palazotto (JA) 203
- Design-to-cost with advanced composites and advanced metallics. Leonard Ascani and Leslie Lackman (JA) 714
- Efficient structural resizing procedure for meeting static aeroelastic design objectives. Edwin Lerner and Joel Markowitz (JA) 65
- Low-pressure diffusion bonding of titanium. J.F. Kenney and C. Deminet (JSR) 88
- Mass matrix correction using an incomplete set of measured modes. Alex Berman (AIAA J, TN) 1147
- Methods of design sensitivity analysis in structural optimization. Jasbir S. Arora and Edward J. Haug (AIAA J) 970
- Mirror deformation for phase compensation of a thermally bloomed laser beam. David Bushnell and Jörgen Skogh (AIAA J) 288
- New look at structural reliability and risk theory. Frederick H. Hooke (AIAA J) 980
- Optimality criterion method for large-scale structures. M.R. Khan, K.D. Willmert, and W.A. Thornton (AIAA J) 753
- Optimization of a stiffened square panel subjected to compressive edge loads. Avinoam Libai (AIAA J, SYN) 1379
- Optimization of triangular laced truss columns with tubular compression members for space application. Chai Hong Yoo (AIAA J, TN) 921
- Optimum design of laminated plates under axial compression. Yoichi Hirano (AIAA J, TN) 1017
- Optimum design of structures at elevated temperatures. Howard M. Adelman, Patricia L. Sawyer, and Charles P. Shore (AIAA J) 622
- Preliminary design of composite wings for buckling, strength, and displacement constraints. James H. Starnes Jr. and Raphael T. Haftka (JA) 564
- Rapid calculation of the resonance frequency for rotationally restrained rectangular plates. Esam M. Nassar (AIAA J) 6
- Repair concepts for advanced composite structures. S.H. Myhre and C.E. Beck (JA) 720
- Secondary bonding of carbon/carbon composites. H.O. Davis (JSR) 432
- Shear correction factors for laminated plates. Sailendra N. Chatterjee and Satish V. Kulkarni (AIAA J, SYN) 498

Structural Durability (including Fatigue and Fracture)

- Absence of bending effects on solar-receiver-tube fatigue. J. Jones (JE, TN) 187
- Accelerated mission testing of gas turbine engines. Jon S. Ogg and Wilson R. Taylor (JA) 247
- Analysis of cracked, adhesively bonded laminated structures. M.M. Ratwani (AIAA J) 988
- Effects of purity on fatigue and fracture of 7XXX-T76511 aluminum extrusion. J.M. Van Orden, W.E. Krupp, E. Walden, and J.T. Ryder (JA) 327
- Erosion prediction near a stagnation point resulting from aerodynamically entrained solid particles. J.A. Laitone (JA) 809
- Factors affecting residual strength prediction of a cracked aircraft structure. M.M. Ratwani and D.P. Wilhem (JA) 209
- Fatigue failure of multidirectional laminate. Assa Rotem (AIAA J) 271
- Fluid-structure interaction dynamics in aircraft fuel tanks. M.A. Ferman and W.H. Unger (JA) 885
- New look at structural reliability and risk theory. Frederick H. Hooke (AIAA J) 980
- Operational environment of Naval aircraft gas turbines. Scott M. Coté and James L. Byers (JA) 729
- Reusable solid rocket motor case: optimum probabilistic fracture control. S. Hanagud and B. Uppaluri (JSR) 147

Structural Dynamics

- Aeroservoelastic encounters. Larry R. Felt, Lawrence J. Huttzell, Thomas E. Noll, and Dale E. Cooley (JA) 477
- Approach for estimating vibration characteristics of nonuniform rotor blades. K.-W. Lang and S. Nemat-Nasser (AIAA J) 995
- Asymmetric vibrations of polar orthotropic laminated annular plates. Isaac Elishakoff and Yehuda Stavsky (AIAA J) 507
- Bessel function evaluation of the clamped end bending moment of an impulsively loaded beam. Henry E. Fettis (AIAA J, TN) 116
- Comment on "Optimal weighted orthogonalization of measured modes." A. Berman (AIAA J, RF) 927
- Reply by authors to A. Berman. Menahem Baruch and Itzhack Y. Bar Itzhack (AIAA J, RF) 928
- Comment on "Unconstrained variational statements for initial and boundary value problems." Cecil D. Bailey (AIAA J, RF) 541

- Reply by author to C.D. Bailey. T.E. Simkins (AIAA J, RF) 542
- Comment on "Unconstrained variational statements for initial and boundary-value problems." C.V. Smith Jr. (AIAA J, TC) 126
- Reply by author to C.V. Smith Jr. T.E. Simkins (AIAA J, TC) 127
- Computational scheme for structural influence coefficients of certain planar wings. John Elliott Moore Jr. and Malcolm A. Cutchins (JA) 315
- Control law synthesis for active flutter suppression using optimal control theory. Jerry R. Newsom (JGC) 388
- Demonstration of aircraft wing/store flutter suppression systems. Chintun Hwang, Bertil A. Winther, George R. Mills, Thomas E. Noll, and Moses G. Farmer (JA) 557
- Design procedures for flutter-free surface panels. Robert M. Laurensen, James I. McPherson, and Charles P. Shore (AIAA J, SYN) 398
- Direct solutions for Sturm-Liouville systems with discontinuous coefficients. Dewey H. Hodges (AIAA J, TN) 924
- Direct velocity feedback control of large space structures. Mark J. Balas (JGC, EN) 252
- Distributed control of spinning flexible spacecraft. L. Meirovitch, H.F. VanLandingham, and H. Öz (JGC) 407
- Drones for aerodynamic and structural testing (DAST)—a status report. H.N. Murrow and C.V. Eckstrom (JA) 521
- Dynamic response analysis of structural systems using a direct integration method. J.S. Przemieniecki and R.J. Talbot (JA) 195
- Dynamic response of axisymmetric solids subjected to impact and spin. Gordon R. Johnson (AIAA J) 975
- Dynamic response of inelastic thick plates. S.S. Rao and K.S. Raghavan (AIAA J) 85
- Dynamics of flexible hybrid structures. Hartmut Bremer (JGC, EN) 86
- Eigenrelations for general second-order systems. H.D. Nelson and D.A. Glasgow (AIAA J, TN) 795
- Eigensolution for large flexible spacecraft with singular gyroscopic matrices. Joseph R. Canavin and Leonard Meirovitch (JGC, EN) 88
- Estimation of payload loads using rigid-body interface accelerations. J.C. Chen, J.A. Garba, and B.K. Wada (JSR) 74
- Finite-element solution of the supersonic flutter of conical shells. Maher N. Bismarck-Nasr and Hely R. Costa Savio (AIAA J, TN) 1148
- Fluid-structure interaction dynamics in aircraft fuel tanks. M.A. Ferman and W.H. Unger (JA) 885
- Historical perspective on gun interior ballistics at the U.S. Army Ballistic Research Laboratory. Leland A. Watermeier and John M. Hurban (PS, V.66) 349
- Impact induced stress waves in an anisotropic plate. Byoung Sung Kim and Francis Moon (AIAA J) 1126
- Mass matrix correction using an incomplete set of measured modes. Alex Berman (AIAA J, TN) 1147
- Modal analysis of the transient asymmetric response of thin circular plates. H.D. Fisher (AIAA J, TN) 1274
- Nonlinear transient analysis via energy minimization. Manohar P. Kamat and Norman F. Knight Jr. (AIAA J, SYN) 968
- Observer modal control of dual-spin flexible spacecraft. L. Meirovitch and H. Öz (JGC) 101
- Rapid calculation of the resonance frequency for rotationally restrained rectangular plates. Esam M. Nassar (AIAA J) 6
- Rebuttal to reply by author to "Comment on 'Flutter of flat finite element panels in a supersonic potential flow'." William P. Rodden (AIAA J, RF) 446
- Reply by author to rebuttal by W.P. Rodden. T.Y. Yang (AIAA J, RF) 448
- Rotor blade stability in turbulent flows - part I. Y.K. Lin, Y. Fujimori, and S.T. Ariaratnam (AIAA J) 545
- Rotor blade stability in turbulent flows - part II. Y. Fujimori, Y.K. Lin, and S.T. Ariaratnam (AIAA J) 673
- Selective optimal orthogonalization of measured modes. Menahem Baruch (AIAA J, TN) 120
- Shear correction factors for laminated plates. Sailendra N. Chatterjee and Satish V. Kulkarni (AIAA J, SYN) 498
- Theoretical technique for analyzing aeroelastic stability of bearingless rotors. Dewey H. Hodges (AIAA J) 400
- Time-dependent response of a two-dimensional airfoil in transonic flow. D.P. Rizzetta (AIAA J) 26
- Unsteady aerodynamic modeling for arbitrary motions. John W. Edwards, Holt Ashley, and John V. Breakwell (AIAA J) 365
- Vibration statistics of thin plates with complex form. Aleksander Waberski (AIAA J, ERR) 544
- Vibration techniques for definition of practical boundary conditions in stiffened shells. Josef Singer and Haim Abramovich (AIAA J) 762
- Voyager design and flight loads comparison. J.C. Chen, J.A. Garba, and F.D. Day III (JSR) 27
- Wing store active flutter suppression — correlation of analyses and wind-tunnel data. T.E. Noll and L.J. Huttzell (JA) 491

Structural Stability

- Aeroelastic instability in F100 labyrinth air seals. D.A. Lewis, C.E. Platt, and E.B. Smith (JA) 484

- Aeroelastic stability analysis of the AD-1 manned oblique-wing aircraft. Michael J. Rutkowski (JA) 401
- Applicability of an asymptotic expansion for elastic buckling problems with mode interaction. Esben Byskov (AIAA J) 630
- Buckling of imperfect anisotropic circular cylinders under combined loading. M. Booton and R.C. Tennyson (AIAA J) 278
- Cutout reinforcement of stiffened cylindrical shells. J.A. Cervantes and A.N. Palazotto (JA) 203
- Elementary explanation of the flutter mechanism with active feedback controls. Hidetsugu Horikawa and Earl H. Dowell (JA) 255
- Erosion behavior in a simulated jet engine environment. T. Wakeman and W. Tabakoff (JA) 828
- Optimization of a stiffened square panel subjected to compressive edge loads. Avinoam Libai (AIAA J, SYN) 1379
- Optimum design of laminated plates under axial compression. Yoichi Hirano (AIAA J, TN) 1017
- Rotor blade stability in turbulent flows - part I. Y.K. Lin, Y. Fujimori, and S.T. Ariaratnam (AIAA J) 545
- Rotor blade stability in turbulent flows - part II. Y. Fujimori, Y.K. Lin, and S.T. Ariaratnam (AIAA J) 673
- Vibration techniques for definition of practical boundary conditions in stiffened shells. Josef Singer and Haim Abramovich (AIAA J) 762

Structural Statics

- Application of brittle coatings to graphite fiber-reinforced plastics. R. Prabhakaran (AIAA J, TN) 110
- Computational scheme for structural influence coefficients of certain planar wings. John Elliot Moore Jr. and Malcolm A. Cutchins (JA) 315
- Effect of nonhomogeneity in orthotropic curved plates. Nicos M. Patsalides and Thomas J. Kim (AIAA J, TN) 1276
- Elastic beams of various orders. James Ting-Shun Wang and John N. Dickson (AIAA J, TN) 535
- Finite-element stress analysis of axisymmetric bodies under torsion. Tien-Yu Tsui (AIAA J, TN) 441
- Methods of design sensitivity analysis in structural optimization. Jasbir S. Arora and Edward J. Haug (AIAA J) 970
- On the accuracy of linear beam theory. R. Parnes (AIAA J, TN) 219

Thermal Stresses

- Absence of bending effects on solar-receiver-tube fatigue. J. Jones (JE, TN) 187
- Erosion behavior in a simulated jet engine environment. T. Wakeman and W. Tabakoff (JA) 828
- Optimum design of structures at elevated temperatures. Howard M. Adelman, Patricia L. Sawyer, and Charles P. Shore (AIAA J) 622
- Thermal stresses in a plasma-sprayed ceramic gas path seal. Christopher M. Taylor and Robert C. Bill (JA) 239

THERMOPHYSICS AND THERMOCHEMISTRY

Ablation, Pyrolysis, Thermal Decomposition and Degradation (including Refractories)

- Aerothermodynamic environment for Jovian entry with silica heat shield. Michael J. Green and William E. Nicolet (PS, V.64) 108
- Analysis of Jupiter probe heat-shield recession uncertainties. H.F. Nelson and S.A. Mezines (PS, V.64) 295
- Combustion of ammonium perchlorate-aluminum mixtures. V.R. Pai Verneker, D. Seetharamacharyulu, and R.M. Mallya (JSR, EN) 436
- Effect of transition metal oxides on decomposition and deflagration of composite solid propellant systems: a survey. K. Kishore and M.R. Sunitha (AIAA J, SP) 1118
- Hydrogen-helium ablation of carbonaceous materials: numerical simulation and experiment. W.C. Davy, G.P. Menees, J.H. Lundell, and R.R. Dickey (PS, V.64) 228
- Ignition and flamespreading phenomena in granular propellant gun charges. J.L. East Jr. (PS, V.66) 228
- Irreversible thermodynamics model for graphite sublimation in radiation environments. R.L. Baker (PS, V.64) 210
- Melting of solid bodies due to convective heating with the removal of melt. Anant Prasad (JSR, EN) 445
- Monte Carlo statistical uncertainty analysis method for nose-tip recession predictions. M.M. Sherman and D.H. Smith (PS, V.64) 368
- Pyrolysis model for an alpha waste incinerator prototype. D.I. Orloff (JE) 90
- Response of heat-shield materials to intense laser radiation. J.H. Lundell and R.R. Dickey (PS, V.64) 193
- Some effects of ablation on transport properties in the Jovian atmosphere. Louis Biolsi and Lawrence R. Wallace (PS, V.64) 65
- Transient ablation of Teflon in intense radiative and convective environments. Norio Arai (AIAA J) 634
- Transient thermal response of ablating bodies. Norio Arai and Kei-ichi Karashima (AIAA J) 191

- Unique nozzle cover for the shuttle booster separation motors. J. Ray Detting and Stan McIntyre (JSR) 361

Experimental Methods of Diagnostics

- Application of digital Fourier analysis in processing dynamic aerodynamic heating measurements. Leroy M. Jenke (AIAA J, SYN) 641
- Experiments with heliostats for central receiver power plants. John P. Thornton and David Waddington (JE) 69
- Heat-transfer considerations in groovelike solar collectors. Hassan Nabavi and Richard B. Bannerot (PS, V.65) 229
- Holography of solid propellant combustion. R.A. Briones and R.F. Wuerker (PS, V.63) 251
- Ignition and flamespreading phenomena in granular propellant gun charges. J.L. East Jr. (PS, V.66) 228
- Optical properties of bipropellant exhaust constituents condensed at 77 K. J.A. Roux, B.E. Wood, R.E. Alt, D.F. Frazine, A.M. Smith and H.E. Scott (JSR) 373
- Research test techniques applied to gun interior ballistics. E.B. Fisher (PS, V.66) 281
- Shock tube measurement of nitric oxide and atomic oxygen by chemiluminescent radiation. P.P. Ostrowski and E.K. Dabora (AIAA J) 898

Heat Conduction

- Direct solutions for Sturm-Liouville systems with discontinuous coefficients. Dewey H. Hodges (AIAA J, TN) 924
- Domestic hot water heating using hot air solar collectors. J.L. Loth (JE, TN) 377
- Inverse problem for the solid cylinder. Murray Imber (AIAA J) 91
- Melting of solid bodies due to convective heating with the removal of melt. Anant Prasad (JSR, EN) 445
- Nonlinear heat transfer in planar solids: direct and inverse applications. Murray Imber (AIAA J) 204
- Periodic heat transfer in radiating and convecting fins or fin arrays. Ralph G. Eslinger and Benjamin T.F. Chung (AIAA J) 1134
- Statistical bounds for the effective thermal conductivity of microsphere and fibrous insulation. C.L. Tien and K. Vafai (PS, V.65) 135
- Thermal contact conductance of dissimilar metals. R.R. Somers II, J.W. Miller, and L.S. Fletcher (PS, V.65) 149
- Thermal resistance at smooth-sphere/rough-flat contacts: theoretical analysis. S.S. Burde and M.M. Yovanovich (PS, V.65) 83
- Thermal resistance due to arbitrary dirichlet contacts on a half-space. G.E. Schneider (PS, V.65) 103
- Thermal resistance of hollow spheres subjected to arbitrary flux over their poles. M.M. Yovanovich, G.E. Schneider, and C. H. Tien (PS, V.65) 120
- Transient ablation of Teflon in intense radiative and convective environments. Norio Arai (AIAA J) 634
- Transient heat conduction from buried underground radioactive nuclear waste. P.B. Wells and E.A. Bathke (JE) 227
- Transient thermal response of ablating bodies. Norio Arai and Kei-ichi Karashima (AIAA J) 191

Heat Pipes

- Augmenting the condenser heat-transfer performance of rotating heat pipes. P.J. Marto and L.L. Wagenseil (AIAA J) 647
- Development of a liquid-trap heat pipe thermal diode. M. Groll, W.D. Münzel, W. Supper, and C.J. Savage (JSR) 195
- Effect of thin film heat transfer on meniscus profile and capillary pressure. P.C. Wayner Jr. (AIAA J) 772
- Entrainment limits in heat pipes. C.L. Tien and K.S. Chung (AIAA J) 643
- Evaluation of commercially available spacecraft-type heat pipes. W.B. Kaufman and L.K. Tower (JSR) 98
- Experiments with gravity-assisted heat pipes with and without circumferential grooves. Karl Thomas Feldman Jr. and Satish Munje (JE) 211
- Fluid evaporation and boiling heat transfer in the grooves of thin-film evaporators. L.L. Vasiliev, A.N. Abramenko, and L.E. Kanonchik (AIAA J) 1395
- Heat transfer in the heating zone of low-temperature heat pipes. V.I. Tolubinsky, V.A. Antonenko, Yu. N. Ostrovsky, and E.N. Shevchuk (AIAA J) 1390
- Marangoni effect and capacity degradation in axially grooved heat pipes. James E. Eninger and B.D. Marcus (AIAA J, TN) 797
- Nontracking moderately focusing heat pipe solar collector. Charles C. Roberts Jr. (JE, TN) 122
- Performance evaluation of gravity-assisted copper-water heat pipes with liquid overfill. H. Nguyen Chi and A. Abhat (AIAA J) 1003
- Vapor flow calculations in a flat-plate heat pipe. H. van Ooijen and C.J. Hoogendoorn (AIAA J) 1251
- Variable-conductance heat pipe radiator for MAROTS-type communications spacecraft. C.J. Savage, B.G.M. Aalders, and H. Kreeb (JSR) 176