PRADEEP RAJ'S PUBLICATIONS & PRESENTATIONS

BOOK CHAPTERS (4)

1. Raj, P., "CFD for Aircraft Design: Expectations, Challenges and Opportunities," *Recent Trends in Applied Aerodynamics and Design*, Proceedings of SAROD-2007, Thiruvananthapuram, India, November 2007, pp 123-142, Kroner, D. et al (Editors)
2. Raj, P., "CFD at a Crossroads: An Industry Perspective," *Frontiers of Computational Fluid Dynamics*, World Scientific Publishing Co., 1998, pp. 429-445, Caughey, D.A. and Hafez, M.A. (Editors).
3. Olling, C.R., Raj, P., and Miranda, L.R., "Aerodynamic Analysis Using Euler/Navier-Stokes Equations," *Computational Fluid Dynamics Techniques*, CRC Press, Gordon and Breach Publishers, 1995, pp. 525-540, Habashi, W.G. and Hafez, M.A. (Editors)
4. Raj, P., "Aerodynamic Analysis Using Euler Equations: Capabilities and Limitations," Chapter 18, *Applied Computational Aerodynamics*, Progress in Astronautics and Aeronautics, Vol. 125, AIAA, Washington D.C., 1990, Henne, P.A. (Editor).

JOURNAL PAPERS (12)

1. Sudalagunta, P.R., Sultan, C., Kapania, R., Watson, L., and Raj, P., "Aeroelastic Control-Oriented Modeling of an Air-breathing Hypersonic Vehicle," *AIAA Journal of Guidance, Control and Dynamics*, Vol. 41, No. 5, May 2018, pp. 1136-1149.
2. Sudalagunta, P.R., Sultan, C., Kapania, R., Watson, L., and Raj, P., "Accurate Computing of Higher Vibration Modes of Thin Flexible Structures," *AIAA Journal*, Vol. 54, No. 5, 2016, pp. 1704-1718.
3. Goodwin, S., Weed, R., Sankar, L.N., and Raj, P., "Toward Cost-effective Aeroelastic Analysis on Advanced Parallel Computing Systems," *AIAA Journal of Aircraft*, Vol. 36, No. 4, July-August 1999, pp 710-715.
4. Raj, P., Keen, J.M., and Singer, S.W., "Applications of an Euler Aerodynamic Method to Free-Vortex Flow Simulation," *AIAA Journal of Aircraft*, Vol. 27, No. 11, November 1990, pp 941-949.
5. Raj, P., and Brennan, J.E., "Improvements to an Euler Aerodynamic Method for Transonic Flow Simulation," *AIAA Journal of Aircraft*, Vol. 26, No.1, January 1989, pp 13-20.
6. Raj, P., Sikora, J.S., and Keen, J.M., "Free-Vortex Flow Simulation Using a Three-Dimensional Euler Aerodynamic Method," *AIAA Journal of Aircraft*, Vol. 25, No. 2, February 1988, pp 128-134.
7. Raj, P., "A Multigrid Method for Transonic Wing Analysis and Design," *AIAA Journal of Aircraft*, Vol. 21, No. 2, February 1984, pp 143-150.
8. Raj, P., Miranda, L.R., and Seebass, A.R., "A Cost-Effective Method for Shock-Free Supercritical Wing Design," *AIAA Journal of Aircraft*, Vol. 19, No. 4, April 1982, pp 283-289.
9. Raj, P., and Iversen, J.D., "Computational Simulation of Turbulent Vortex Merger and Decay," *AIAA Journal*, Vol. 18, No. 8, August 1980, pp. 865-866.
10. Raj, P., and Gray, R.B., "Computation of Three-Dimensional Potential Flow Using Surface Vorticity Distribution," *AIAA Journal of Aircraft*, Vol. 16, No. 3, March 1979, pp 162-169.
11. Raj, P., and Iversen, J. D., "Inviscid Interaction of Trailing Vortex Sheets Approximated by Point Vortices," *AIAA Journal of Aircraft*, Vol.15, No.12, December 1978, pp. 857-859.
12. Raj, P., and Gray, R.B., "Computation of Two-Dimensional Potential Flow Using Elementary Vortex Distributions," *AIAA Journal of Aircraft*, Vol. 15, No.10, October 1978, pp. 698-700.

CONFERENCE PAPERS (48)

1. Raj, P., "Effectiveness of CFD in Aircraft Design: Status and Prospects," ICAS 2024-0283, 34th Congress of the International Council of the Aeronautical Sciences, Florence, Italy, September 9-13, 2024.

2. Arbolino, J.C., Edwards, L.H., von Spakovsky, M.R., and Raj, P., "Experimental Evaluation of Innovative Thermal Energy Storage Options for a Non-Airbreathing Hypersonic Vehicle's Internal Loads," AIAA-2024-1897, AIAA SciTech Forum, Orlando, FL, Jan 8-12, 2024.
3. Edwards, L.H., Arbolino, J.C., von Spakovsky, M.R., and Raj, P., "Evaluation of Various Energy Storage Options for the Internal Thermal Loads of a Non-Airbreathing Hypersonic Vehicle," AIAA-2024-1896, AIAA SciTech Forum, Orlando, FL, Jan 8-12, 2024.
4. Shah, H., and Raj, P., "An Assessment of CFD Effectiveness for Simulating Wing-Propeller Aerodynamic Interactions," RAeS Applied Aerodynamics Conference, London, UK, September 13-15, 2022.
5. Polepeddi, V., Raj, P., and Emeneth, M., "Regional Transport Aircraft Design Using Turbo-Electric Distributed Propulsion (TEDiP) System," ICAS 2022-0609, 33rd Congress of the International Council of the Aeronautical Sciences, Stockholm, Sweden, September 4-9, 2022.
6. Raj, P., "Applied Computational Aerodynamics: *An Unending Quest for Effectiveness*," Lead Paper, RAeS Applied Aerodynamics Conference, Bristol, UK, July 24-26, 2018.
7. Ganesh, R.V., Raj, P., Choi, S., and Emeneth, M., "Development and application of WASPE for conceptual design of HEDiP aircraft," Paper P.2, RAeS Applied Aerodynamics Conference, Bristol, UK, July 24-26, 2018.
8. Park, J., Arora, A., Prasad, R., Choi, S., and Raj, P., "Multi-response Gaussian Process Regression for Multidisciplinary Design Analysis and Optimization," AIAA-2018-4172, Multidisciplinary Analysis and Optimization Conference, AIAA Aviation Forum, Atlanta, GA, June 25-29, 2018.
9. Park, J., Jo, Y., Yi, S., Choi, S., and Raj, P., "Variable-Fidelity Design Optimization using Adaptive Sampling and Polynomial Chaos Kriging Model," AIAA-2017-1754, 58th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA SciTech Forum, Grapevine, TX, January 9-13, 2017.
10. Li, Q., Balakrishnan, D., Zhang, X., Burgos, R., Boroyevich, D., and Raj, P., "Conceptual Design and Weight Optimization of Aircraft Power Systems with High-Peak Pulsed Power Loads," SAE 1016-01-1986, SAE 2016 Aerospace Systems and Technology Conference, Hartford, CT, Sept. 27-29, 2016.
11. Park, J., Choi, S., and Raj, P., "On More Effective Aerodynamic Data Generation for Simulation Based Aircraft Conceptual Design," ICAS 2016-0151, 30th Congress of the International Council of the Aeronautical Sciences, Daejeon, Korea, September 25-30, 2016.
12. Raj, P., and Abulawi, J., "Using International Collaborative Aircraft Design Projects to Enhance Undergraduate Design Education: Lessons Learned," ICAS 2016-0150, 30th Congress of the International Council of the Aeronautical Sciences, Daejeon, Korea, September 25-30, 2016.
13. Raj, P., and Choi, S., "TiCTaC: An Innovative Paradigm for Aerodynamic Data Generation to Meet Aircraft Conceptual Design Needs," Paper C.2, RAeS Applied Aerodynamics Conference, Bristol, UK, July 19-21, 2016.
14. Park, J., Jo, Y., Yi, S., Choi, S., and Raj, P., "Variable-Fidelity Multidisciplinary Design Optimization for Innovative Control Surface of Tailless Aircraft," AIAA-2016-4038, 34th AIAA Applied Aerodynamics Conference, AIAA Aviation Forum, Washington, D.C., June 13-17, 2016.
15. Reed, W.C., von Spakovsky, M.R., and Raj, P., "Comparison of Heat Exchanger and Thermal Energy Storage Designs for Aircraft Thermal Management Systems," AIAA-2016-1023, 54th AIAA Aerospace Sciences Meeting, AIAA SciTech Forum, San Diego, CA, January 4-8, 2016.
16. Sudalagunta, P., Sultan, C., Kapania, R., Watson, L., and Raj, P., "Aeroelastic Control-oriented Modeling of an Air-breathing Hypersonic Vehicle," AIAA-2016-1325, 15th Dynamics Specialists Conference, AIAA SciTech Forum, San Diego, CA, January 4-8, 2016.
17. Friedman, A., Raj, P., and Alyanak, E., "Multidisciplinary Design Space Exploration Using Additive Manufacturing and Rapid Prototype Testing," AIAA-2015-2942, 16th AIAA/ISSMO

Multidisciplinary Analysis and Optimization Conference, AIAA Aviation Forum, Dallas, TX, June 22-26, 2015.

18. Sudalagunta, P.R., Sultan, C., Kapania, R., Watson, L., and Raj, P., "A Novel Scheme to Accurately Compute Higher Vibration Modes using the Ritz Method and a Two-point BVP Solver," AIAA Paper 2015-1166, 56th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, AIAA SciTech Forum, Kissimmee, FL, January 5-9, 2015.
19. Raj, P., and Friedman, A., "On timely and cost-effective prediction of aerodynamic data to meet aircraft design needs," Paper H.1, RAeS Applied Aerodynamics Conference, Bristol, UK, July 22-24, 2014.
20. Raj, P., "CFD for Aerodynamic Flight Performance Prediction: From Irrational Exuberance to Sobering Reality (Invited)," 5th Symposium on Integrating CFD and Experiments in Aerodynamics, Tokyo, Japan, October 3-5, 2012.
21. Raj, P., "Computational Uncertainty: *Achilles' Heel* of Simulation Based Aircraft Design (Invited)," NATO/RTO Air Vehicle Technology (AVT) Symposium on Computational Uncertainty in Military Vehicle Design, Athens, Greece, December 3-6, 2007.
22. Raj, P., "CFD for Aircraft Design: Expectations, Challenges and Opportunities (Invited)," 3rd Symposium on Applied Aerodynamics and Design of Aerospace Vehicles, SAROD-2007, Thiruvananthapuram, India, 22-23 November 2007.
23. Raj, P., Finley, D.B., and Ghaffari, F., "An Assessment of CFD Effectiveness for Vortex Flow Simulation to Meet Preliminary Design Needs," NATO/RTO Air Vehicle Technology (AVT) Symposium on Advanced Flow Management, Loen, Norway, 7-11 May 2001.
24. Raj, P., "Aircraft Design in the 21st Century: Implications for Design Methods (Invited)," AIAA 98-2895, 29th AIAA Fluid Dynamics Conference, Albuquerque, NM, June 15-18, 1998.
25. Raj, P., "CFD at a Crossroads: An Industry Perspective (Invited)," *Thirty Years of CFD and Transonic Flow* Symposium to honor Prof. Earll Murman on his 55th Birthday, Everett, WA, June 1997.
26. Vermeersch, S., Weed, R., Sankar, L.N., and Raj, P., "Towards Cost-effective Aeroelastic Analysis on Advanced Parallel Computing Systems," AIAA Paper 97-0646, 35th Aerospace Sciences Meeting, Reno, NV, January 1997.
27. Raj, P., Kinard, T.A., and Vermeersch, S.A., "Vortical Flow Simulation Using an Unstructured-Grid Euler Method," ICAS 96-1.4.5, Proceedings of the 20th Congress of the International Council of the Aeronautical Sciences, Sorrento, Italy, September 1996.
28. Kinard, T.A, Harris, B., and Raj, P., "Computational Simulation of Benign and Burst Vortex Flows," AIAA Paper 95-1815, Proceedings of the 13th Applied Aerodynamics Conference, San Diego, CA, June 19-22, 1995.
29. Raj, P., "Requirements for Effective Use of CFD in Aerospace Design (Invited)," NASA Workshop on Surface Modeling, Grid Generation and Related Issues in Computational Fluid Dynamics (CFD) Solutions, NASA-Lewis Research Center, Cleveland, OH, May 9-11, 1995. (Also NASA CP 3291, pp 15-28)
30. Raj, P., and Harris, B., "Using Surface Transpiration with an Euler Method for Cost-effective Aerodynamic Analysis," AIAA 93-3506, Proceedings of the 11th AIAA Applied Aerodynamics Conference, Monterey, CA, August 9-11, 1993.
31. Raj, P., "Recent Advances in Euler/Navier-Stokes Computational Methods (Invited)," International Symposium on Advances in Aerospace Sciences and Engineering, Bangalore, India, December 1992.
32. Raj, P., and Singer, S.W., "Computational Aerodynamics in Aircraft Design: Challenges and Opportunities for Euler/Navier-Stokes Methods," iPAC 911990, Proceedings of the International Pacific Air & Space Technology Conference, Gifu, Japan, October 7-11, 1991.
33. Raj, P., Olling, C.R., and Singer, S.W., "Application of Euler/Navier-Stokes Aerodynamic Methods to Aircraft Configuration," ICAS Paper 90-6.4.4, Proceedings of the 17th Congress of the International Council of the Aeronautical Sciences, Stockholm, Sweden, September 9-14, 1990.

34. Raj, P., "Recent Developments in the Computational Solutions of Euler Equations (Invited)," Third International Congress of Fluid Mechanics, Cairo, Egypt, January 2-4, 1990.
35. Raj, P., "An Euler Code for Nonlinear Aerodynamic Analysis: Assessment of Capabilities," Advanced Aerospace Aerodynamics, SAE SP 757, 1988, pp 215-230. (Also SAE Paper 881486, Aerospace Technology Conference and Exposition, Anaheim, CA, October 3-6, 1988)
36. Raj, P., Keen, J.M., and Singer, S.W., "Applications of an Euler Aerodynamic Method to Free-Vortex Flow Simulation," AIAA paper 88-2517, Proceedings of the 6th Applied Aerodynamics Conference, Williamsburg, VA, June 6-8, 1988.
37. Raj, P., and Brennan, J.E., "Improvements to an Euler Aerodynamic Method for Transonic Flow Simulation," AIAA Paper 87-0040, 25th Aerospace Sciences Meeting, Reno, NV, January 12-15, 1987.
38. Raj, P., Sikora, J.S., and Keen, J.M., "Free-Vortex Flow Simulation Using a Three-dimensional Euler Aerodynamic Method," ICAS Paper 86-1.5.2, Proceedings of the 15th Congress of the International Council of the Aeronautical Sciences, London, England, U.K., September 7-12, 1986.
39. Raj, P., and Long, L.N., "An Euler Aerodynamic Method for Leading-Edge Vortex Flow Simulation," NASA Conference on Vortex Flow Aerodynamics, NASA CP-2416, October 1985, pp 263-282.
40. Raj, P., "Computational Simulation of Free Vortex Flows Using an Euler Code," ICAS Paper 84-1.3.1, Proceedings of the 14th Congress of the International Council of the Aeronautical Sciences, Toulouse, France, September 10-14, 1984.
41. Raj, P., and Sikora, J.S., "Free-Vortex Flows: Recent Encounters with an Euler Code," AIAA Paper 84-0135, 22nd Aerospace Sciences Meeting, Reno, NV, January 9-12, 1984.
42. Sharble, R.C., and Raj, P., "An Algebraic Grid-Generation Method Coupled with an Euler Solver for Simulating Three-Dimensional Flows," AIAA Paper 83-1807, AIAA Applied Aerodynamics Conference, Danvers, MA, July 13-15, 1983.
43. Raj, P., "A Multigrid Method for Transonic Wing Analysis and Design," AIAA Paper 83-0262, 21st Aerospace Sciences Meeting, Reno, NV, January 10-13, 1983.
44. Raj, P., Miranda, L.R., and Seebass, A.R., "A Cost-Effective Method for Shock-Free Supercritical Wing Design," AIAA Paper 81-0383, 19th Aerospace Sciences Meeting, St. Louis, MO, January 12-15, 1981.
45. Raj, P., and Iversen, J.D., "Computational Simulation of Corotational Vortex Merger Using 0, 1, and 2 Equation Turbulence Models," Proceedings of the Second International Symposium on Turbulent Shear Flows, Imperial College, London, July 2-4, 1979.
46. Raj, P., and Iversen, J.D., "Computational Simulation of Turbulent Vortex Merger and Decay," AIAA Paper 79-0278, 17th Aerospace Sciences Meeting, New Orleans, LA, January 15-17, 1979.
47. Raj, P., and Iversen, J.D., "Computational Studies of Turbulent Merger of Corotational Vortices," AIAA Paper 78-108, 16th aerospace Sciences Meetings, Huntsville, AL, January 16-18, 1978.
48. Iversen, J.D., Brandt, S.A., and Raj, P., "Merging Distance Criteria for Corotating Trailing Vortices," Proceedings U.S. Department of Transportation Conference on Aircraft Trailing Vortices, Cambridge, MA, March 15-17, 1977.

TECHNICAL REPORTS (12)

1. Kinard, T.A., and Raj, P., "Euler Technology Assessment for Preliminary Aircraft Design—Compressibility Predictions by Employing the Unstructured Grid USM3D Code," NASA Contractor Report 4711, March 1996.
2. Kinard, T.A., Harris, B.W., and Raj, P., "An Assessment of Viscous Effects in Computational Simulation of Benign and Burst Vortex Flows on Generic Fighter Wind-Tunnel Models Using TEAM Code," NASA Contractor Report 4650, March 1995.
3. Goble, B.D., Raj, P., and Kinard, T.A., "Three-dimensional Euler/Navier-Stokes Aerodynamic Method (TEAM) Upgrade, Version 713 User's Manual," WL-TR-93-3115, February 1994.

4. Raj, P., Olling, C.R., Sikora, J.S., Keen, J.M., Singer, S.W., and Brennan, J.E., "Three-dimensional Euler/Navier-Stokes Aerodynamic Method (TEAM), Volume I: Computational Method and Verification," AFWAL-TR-87-3074, June 1989.
5. Raj, P., Olling, C.R., Sikora, J.S., Keen, J.M., Singer, S.W., and Brennan, J.E., "Three-dimensional Euler/Navier-Stokes Aerodynamic Method (TEAM), Volume II: Grid Generation User's Manual," AFWAL-TR-87-3074, June 1989.
6. Raj, P., Olling, C.R., Sikora, J.S., Keen, J.M., Singer, S.W., and Brennan, J.E., "Three-dimensional Euler/Navier-Stokes Aerodynamic Method (TEAM), Volume III: Flow Analysis User's Manual," AFWAL-TR-87-3074, June 1989.
7. Raj, P., Brennan, J.E., and Sikora, J.S., "CFD at LASC: Present Capabilities and Plan for Technological Leadership," Lockheed Aeronautical Systems Company Report, LR 31615, February 1989.
8. Raj, P., "Applied Computational Aerodynamics: 1985 Year End IRAD Progress Report," Lockheed-California Company Report, LR 30975, February 1986.
9. Raj, P., "PACMAPS: A Three-Dimensional Grid-Generation Method," Lockheed-California Company Report, LR 30811, October 1984.
10. Raj, P., "A Generalized Wing-Body Euler Code, FLO-57GWB," Lockheed-California Company Report, LR 30490, June 1983.
11. Raj, P., and Reaser, J.S., "An Improved Full-Potential Finite-Difference Transonic-Flow Code, FLO-22.5," Lockheed-California Company Resort, LR 29759, June 1981.
12. Raj, P., "Shock Free Advanced Supercritical Wing Design," Lockheed-California Company Report, LR 29697, May 1981.

ORAL PRESENTATIONS (40, in addition to the presentations at conferences listed above)

1. Raj, P., "Reflections on ACA Effectiveness for Aircraft Design," Emerging Trends in Computational Fluid Dynamics: Towards Industrial Applications, Jameson-Kim-Wang symposium in honor of Professor Antony Jameson's 90th birthday and in celebration of the 60th birthdays of Professors Chongam Kim and ZJ Wang, Stanford University Redwood City Campus, California, December 5-7, 2024.
2. Raj, P., "Evolution of Applied Computational Aerodynamics and Pursuit of Effectiveness: *Reflections of My Journey on a Long and Winding Road*," Ohio State University, Columbus, Ohio, October 25, 2019.
3. Raj, P., "Applied Computational Aerodynamics (ACA): *Reflections on My Long and Exciting Journey in the Never-ending Pursuit of Effectiveness*," Dinner Meeting, AIAA University of Dayton Student Branch, Dayton-Cincinnati Section, Dayton, Ohio, October 22, 2019.
4. Raj, P., "Applied Computational Aerodynamics: *A Perspective on the Unending Quest for Effectiveness*," University of Illinois Aerospace Engineering Seminar, Urbana-Champaign, Illinois, November 5, 2018.
5. Raj, P., "Aerodynamic Simulation with Propeller Effects for Aircraft with Hybrid-electric Distributed Propulsion," PACEdays Conference & User Group Meeting, Berlin, Germany, September 11, 2018.
6. Raj, P., "An Unending Quest for Effective ACA: A Perspective," Virginia Tech AOE Seminar, Blacksburg, Virginia, September 10, 2018.
7. Raj, P., "The Skunk Works®: Continually Redefining Flight for 75 Years," Loughborough University, Loughborough, UK, March 6, 2018.
8. Raj, P., "Conversation with a 40^{+} Year Aerospace Engineering Veteran," AIAA Virginia Tech Student Branch Meeting, Blacksburg, Virginia, December 11, 2013.
9. Raj, P., "The Skunk Works®: Continually Redefining Flight for Nearly Seven Decades," AIAA Virginia Tech Student Branch Meeting, Blacksburg, Virginia, November 27, 2012.

10. Raj, P., "The Skunk Works®: Revolutionizing Aviation for Nearly Seven Decades," Japan Aerospace Exploration Agency, Chofu, Tokyo, Japan, October 2, 2012.
11. Raj, P., "Computational Fluid Dynamics for Simulation Based Design: Challenges and Opportunities," National Defense Industrial Association (NDIA) Physics-Based Modeling in Design & Development for U.S. Defense Conference, Denver, Colorado, November 14-17, 2011.
12. Raj, P., "On 'Grand Challenges' for CFD-focused Engineering Simulations (in the context of Flight Vehicles Development)," CD-adapco Customer Advisory Council Meeting, New Orleans, LA, November 9-11, 2011.
13. Raj, P., "Overarching Challenges and Opportunities for the Development of Future Air Platforms," 2010 Royal Aeronautical Society Aerodynamics Conference, Bristol, UK, July 27-28, 2010.
14. Raj, P., "Computational Methods for Stability and Control: A Perspective," NASA Symposium on Computational Methods for Stability and Control (COMSAC), Hampton, Virginia, September 23-25, 2003.
15. Raj, P., "Aerodynamic Data Generation for SBA (Simulation Based Analysis): *A "New Partnership" of CFD with Wind Tunnels,"* DoD HPCMPO Workshop on V&V and Certification by Analysis, Dayton, Ohio, May 28-29, 2003.
16. Raj, P., "Aerodynamic Flight Prediction: A Perspective," NASA/DoD Workshop on Aerodynamic Flight Prediction, Williamsburg, Virginia, November 19-21, 2002.
17. Raj, P., "Aircraft Design in the 21st Century: Implications for Design Methods," Multidisciplinary Analysis, Inverse Design and Optimization Program, Department of Mechanical and Aerospace Engineering, University of Texas at Arlington, Arlington, Texas, March 14, 2002.
18. Raj, P., "Twenty Five Years of CFD: From Irrational Exuberance to Rational Sobriety!," AIAA Atlanta Section - Dinner Meeting, Atlanta, Georgia, September 19, 2000.
19. Raj, P., "Perspectives on the Future of CFD," AIAA Fluids 2000 Meeting, Denver, Colorado, June 19-22, 2000.
20. Raj, P., "Aircraft Design in the 21st Century: Implications for Design Methods," AIAA Atlanta Section, Aerospace Technology Symposium, Marietta, Georgia, February 26, 2000.
21. Raj, P., "Aircraft Design in the 21st Century: Implications for Design Methods," MAD Center Industrial Advisory Board Meeting, Virginia Tech, Blacksburg, Virginia, November 13, 1998.
22. Raj, P., "Aircraft Design in the 21st Century: Implications for Design Methods," Interdisciplinary Science Colloquium, Kennesaw State University, Kennesaw, Georgia, October 23, 1998.
23. Raj, P., "Reflections on Euler/Navier-Stokes Methods for Aircraft Design Applications," Computational Aerodynamics—Past, Present and Future (A conference honoring Paul Rubbert for over thirty years of outstanding vision and leadership in the development and application of CFD; hosted by the Boeing company), Seattle, Washington, September 26-27 1997.
24. Raj, P., "CAS and Aircraft Design: Challenges and Opportunities" NASA Computational Aerosciences Workshop, Moffett Field, California, March 7-9, 1995.
25. Raj, P., "Modern Methods for Aerodynamic Analysis," Lecture, AIAA Short Course on Aerodynamic Analysis and Design, Palo Alto, California, June 1992.
26. Raj, P. "An Euler Code for Nonlinear Aerodynamic Analysis: Assessment of Capabilities," Seminar, Department of Mechanical Engineering, University of Miami, Coral Gables, Florida, March 1, 1991.
27. Raj, P. "An Euler Code for Nonlinear Aerodynamic Analysis: Assessment of Capabilities," Seminar, Department of Mechanical and Aerospace Engineering, Florida Institute of Technology, Melbourne, Florida, February 28, 1991.
28. Raj, P., "Computational Fluid Dynamics for Flight Vehicle Design: Present Capabilities and Future Requirements," Seminar, Department of Mechanical Engineering, University of Southern California, Los Angeles, California, October 11, 1990.
29. Raj, P. "An Euler Code for Nonlinear Aerodynamic Analysis: Assessment of Capabilities," Seminar, Department of Mechanical Engineering, Washington University, St. Louis, Missouri, Sept. 27, 1990.

30. Raj, P., “CFD for Aircraft Design: Present Capabilities and Future Requirements,” Mini-symposium 29: Aerospace Design, SIAM Conference on Dynamical Systems, Orlando, FL, May 7-10, 1990.
31. Raj, P., “CFD: The Adolescent Years,” AIAA Student Chapter, San Diego State University, San Diego, California, May 3, 1990.
32. Raj, P., “Three-dimensional Euler/Navier-Stokes Aerodynamics Method (TEAM),” Aerodynamic Methods Group Contracts Review, Wright Research and Development Center, Wright-Patterson AFB, Ohio, November 15, 1989.
33. Raj, P., “Airplane Aerodynamic Design: The Challenge of Flow Simulation,” Aircraft Design Seminar, Cal Poly Pomona, California, 1989 and 1990.
34. Raj, P., “Aerodynamic Simulation on CRAY Supercomputers: Bridging the Gap between Imagination and Reality,” Cray User Group (CUG) Conference, Los Angeles, California, April 1989.
35. Raj, P., “Three-dimensional Euler Aerodynamic Method, TEAM,” AIAA Professional Study Series, Euler Solvers Workshop, Monterey, California, August 1987.
36. Raj, P., “Vortex Breakdown Simulation Using an Euler Aerodynamic Method,” Open Forum – Vortex Breakdown, AIAA 25th Aerospace Sciences Meeting, Reno, Nevada, January 1987.
37. Raj, P., “Three-dimensional Euler Aerodynamics Methods,” 2nd Lockheed Corporation Symposium on Computational Aerodynamics/Fluid mechanics, Marietta, Georgia, May 1985.
38. Raj, P., “Free Vortex Flows: Continuing Encounters of the Euler Kind,” 2nd Lockheed Corporate Symposium on Computational Aerodynamics/Fluid mechanics, Marietta, Georgia, May 1985.
39. Raj, P., “Transonic Wing Analysis and Design Using FLO-22.5,” 1st Lockheed Corporate Symposium on Computational Aerodynamics, Burbank, California, April, 1983.
40. Raj, P., “Free-Vortex Flows: Recent Encounters of the Euler Kind,” 1st Lockheed Corporate Symposium on Computational Aerodynamics, Burbank, California, April, 1983.