CURRICULUM VITAE OF K. C. (KWANG-CHUN) PARK
(Version as of September 2014)

PRESENT AFFILIATION
Professor Emeritus
Department of Aerospace Engineering Sciences
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CURRENT RESEARCH INTERESTS: Computational Multiphysics, Linear and Nonlinear Waves, Fluid-Structure Interaction, System Identification, Dynamics of Metamaterials, Membranaous Aerospace Structures

EXPERIENCE

6/2014 - present:
Department of Aerospace Engineering Sciences, Boulder, Colorado. *Professor Emeritus.*

9/2014-2/2015:
Department of Mechanical Engineering, Korea University, Seoul, Korea. *Distinguished Invited Professor.*

6/1987-5/2014:
Department of Aerospace Engineering Sciences, Boulder, Colorado. *Professor.*

Established the Center for Space Structures and Controls (CSSC) and served as its founding Director (11/1985-8/1988). Director of Center for Aerospace Structures (CAS) (6/1991-8/1996).

Initiated a new graduate program in space structures and computational mechanics in the College of Engineering

Served as Technical Director, Center for Space Construction (a NASA-sponsored space engineering center) (9/1987-8/1988).

9/2013-12/2013:   Department of Aeronautics and Astronautics, Stanford University, Stanford, CA. *Visiting Professor.*

6/2009-8/2013:   Korea Advanced Institute of Science and Technology, Daegeon, Korea *WCU Visiting Professor.*   Six months/year.

2002-2009:   Korea Advanced Institute of Science and Technology, Daegeon, Korea *Distinguished Invited Professor.*   One to three months/year.

1997-2009:   Conservatoire National des Arts et Metiers, Paris, France. *Professeur Invité* during the summer.

6/2005-8/2005:   Summer, 2005: Laboratoire de Sols Solides Structures, Domaine Universitaire, Grenoble, France. *Professeur Invité.*

9/1999 - 6/2000 Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Mass. *Visiting Professor.*

3/2000-5/2000: Institute of Space and Astronautical Science, Sagamihara, Kanagawa 229, Japan. *Visiting Professor.*

6/2000-7/2000: College of Industrial Technology, Nihon University, Tokyo, Japan. *Visiting Professor.*

5/1996-8/1997 <u>Summer, 1997</u>: Institut National des Sciences Appliques de Rouen, Roeun, France *Professeur Invité.*

5/1996-7/1996 <u>Summer, 1996</u>: University of Paris VI and Joseph Frourier University of Grenoble *Professeur Invité.*

1/1992-12/1992: <u>Fall, 1992</u> Institute of Space and Astronautical Science, Sagamihara, Kanagawa 229, Japan. *Visiting Professor.*

<u>Summer, 1992</u> Laboratoire de Mecanique et Technologie, Ecole Normale Superieure de Cachan, 94235 Cachan Cedex, France. *Professeur Invité.*

<u>Spring, 1992</u> Department of Aeronautics and Astronautics, Massachusetts Institute of Technology, Cambridge, Mass. *Visiting Professor.*

11/1985-5/1987: Department of Mechanical Engineering, Boulder, Colorado. *Professor.*

4/1980-10/1985: LOCKHEED MISSILES & SPACE CO., INC. Palo Alto Research Laboratory, Palo Alto, California. *Senior Staff Scientist.* Conducted and supervised research on dynamics of large space structures, finite element methods for nonlinear shells and coupled-field problems, algorithms for concurrent computations, partitioned analysis techniques for structure-medium interaction problems. Consulted other Lockheed Divisions on structural dynamics and finite element methods.

10/1979-3/1980: NATIONAL AERONAUTICS AND SPACE ADMINISTRATION, Langley Research Center, Hampton, Virginia. *Visiting Scientist.* Conducted nonlinear modeling and dynamic analysis of thermal protection system for space shuttle's insulation ceramic tile and shock absorption pad. Conducted seminars on computational structural dynamics for NASA and other personnel at Langley.

2/1976-9/1979: LOCKHEED MISSILES AND SPACE COMPANY, INC., Palo Alto Research Laboratory, Palo Alto, California.
Research Scientist. Conducted research on improved transient analysis algorithms for computational structural dynamics and fluid-structure interaction problems.
4/1974-1/1976: *Associate Research Scientist.* Conducted research on vehicle crashworthiness and structural vulnerability.

4/1973-3/1974: LOCKHEED-CALIFORNIA COMPANY, Burbank, California. *Senior Structural Engineer.* Conducted experimental and analytical helicopter crashworthiness studies for U. S. Army Fort Eustis Transportation Research Center.

6/1972-3/1973: GEORGE WASHINGTON UNIVERSITY, Washington, D. C. The Fatigue Institute. *Research Assistant.* Performed nonlinear dynamics analysis of elastic-plastic structures by the finite element methods.

1/1971-5/1972: CLARKSON COLLEGE OF TECHNOLOGY, Potsdam, New York. *Graduate Research Assistant.* Conducted research to develop failure prediction techniques of impacted structures.

3/1968-7/1969:   KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY, Seoul, Korea. *Mechanical Engineer.* Performed the technology assessment of Korean automobile industry for instituting an automobile technology research and development center.

1/1966-2/1968:   HANKUK MACHINE INDUSTRIAL COMPANY, Incheon, Korea. *Junior Design Engineer.* Performed manufacturing layout plans for machining diesel engine components including jigs and fixtures.

EDUCATION
Ph.D. (5/1975), Applied Mechanics and Systems Analysis, Clarkson College (1/1971-5/1975).
M.S. (6/1970), Controls, Stanford University, Stanford, California (9/1969-12/1970).
BSME (2/1966), Inha Institute of Technology, Incheon, Korea (3/1962-2/1966).

PROFESSIONAL ACTIVITIES
Fellow, American Society of Mechanical Engineers, Committee on Computing in Applied Mechanics (1976-1986), Adaptive Structures and Materials Committee (1991-1998).
Editorial Board, Int'l Journal of Numerical Methods in Engineering (1978-present)
Editorial Board, Journal of Mechanical Science and Technology (2009-present).
Editorial Board, Internaltional Journal of Aeronautical and Space Sciences (2011-present).
Member, NASA/OAST Space Systems and Technology Advisory Committee (1985–1993)
Editorial Board, Communications in Applied Numerical Methods (1980-2004).
Editorial Board, Computers & Structures: An International Journal (1998-2004)
Editorial Board, International Journal of Computational Engineering Science (IJCES) (1996-2003)
Editorial Board, Computer Methods in Engineering Sciences (CMES) (1996-2002)

RECENT INVITED LECTURES
2013:
Title: Recent Developments in External Acoustic-Structure Interaction Models. Department of Aeronautics and Astronautics, Stanford University, October 16, 2013.

Title: Virtual Testing of Hopkinsons Heterogeneous Bars: How Close Are We? Mechanics and Computation Seminar, Stanford University, October 3, 2013.

Title: Recent Developments in Discontinuous Wave Propagation Algorithms: There is Plenty Room for Improving Second-Order Methods. Semi-Plenary Lecture, COMPDYN2013 Conference, Kos Island, Greece, June 13, 2013.

Title: Partitioned Multiphysics and Multiscale Simulation: Its Origin, Present Practice and Future Challenge, Istanbul Technical University, Istanbul, Turkey, January 9, 2013.

2012:
Title: Partitioned Multiphysics and Multiscale Simulation: Its Origin, Present Practice and Future Challenge, Technical University of Prague, Prague, Republic of Czech, October 4, 2012.

2011:
Title: A method for computation of discontinuous wave propagation in heterogeneous solids," *Given as a GALCIT Seminar*, California Institute of Technology, Pasadena, CA, November 11, 2011.

Title: Variational algorithms for treating high gradient phenomena in the dynamics of solids. *Semi-Plenary Lecture* at COMPDYN2011 (3rd International Conference on Computational Dynamics and

Earthquake Engineering), 26-28 May 2011, Corfu, Greece.

Title: A Computational and Experimental Modeling of the Physics of Nonlinear Sloshing and Internal Wave Breaking. *Plenary Lecture* at Coupled2011 (IV International Conference on Computational Methods for Coupled Problems in Science and Engineering), 20-22 June 2011, Kos Island, Greece.

2010:

21 January 2010. Toyama University, Toyama, Japan. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

22 January 2010. Kanazawa Institute of Technology, Kanazawa, Japan. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

25 January 2010. Tokyo Institute of Technology, Tokyo, Japan. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

18 March 2010. Sungkyunkwan University, Yongin, Korea. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

16 April 2010. Pusan National University, Busan, Korea. Title: System Theory-Based Identification of Dynamical Models and Applications

03 June 2010. Braunschweig University, Braunschweig, Germany Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

11 June 2010. Norwegian University of Science and Technology, Trondheim, Norway. Title: Partitioned Multiphysics and Multiscale Simulation: Its Origin, Present Practice and Future Challenge

13 August 2010. UKC2010 Conference, Seattle , WA. Title: Can Flexibility-Based Model Reduction Techniques Be in Vogue again?

11 November 2010. KAIST, Daejeon, Korea. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

18 November 2010. Stanford University, Stanford, CA, USA. Title: Paradigm Changes from Analytical to Data-Oriented Engineering Modeling: Is it a boon or menace?

2009:

Invited Lecture: Treatment of Coupling Terms for Partitioned Analysis of MultiPhysics Problems, Sandia National Laboratories, Albuquerque, N. M., 26 January 2009.

Invited Seminar: Partitioned Analysis of Fluid-Structure Interaction Systems: Origin, Subsequent Developments, and Future Potential, Presented at KAIST, 24 March 2009.

Lecture: RECENT PROGRESS IN EXTERNAL ACOUSTIC-FLEXIBLE STRUCTURAL INTERACTIONS, Division of Ocean Systems Engineering, KAIST, 23 March 2009.

Lecture: RECENT PROGRESS IN EXTERNAL ACOUSTIC-FLEXIBLE STRUCTURAL INTERACTIONS, Department of Ocean Technology, Graduate School of Frontier Sciences, University of Tokyo, Kashiwa, Japan, 16 October 2009.

Invited Seminar: RECENT PROGRESS IN EXTERNAL ACOUSTIC-FLEXIBLE STRUCTURAL INTERACTIONS, Department of Naval Architecture and Ocean Engineering, Busan University, Busan, 12 November 2009.

Invited Seminar: RECENT PROGRESS IN EXTERNAL ACOUSTIC-FLEXIBLE STRUCTURAL INTERACTIONS, Department of Naval Architecture and Ocean Engineering, University of Ulsan, Ulsan, 10 December 2009.

2008:

Keynote Lecture: Aerospace Structures: Present Status, Future Challenges, and Research Needs. the KSAS-JSASS Meeting, Jeju Island, South Korea 20 November 2008

Invited Lecture: A Critical Survey of Theoretical Developments and Engineering Practices in Nonlinear Structural Dynamics Modeling. Sandia National Laboratories, Albuquerque, NM, August 22, 2008.

Special Session in honor of Professor O. C. Zienkiewicz, Staggered Analysis Procedures Revisited Initial Fondest Hopes, Ensuing Applications, and Future Prospects. WCCM-VIII, Venice, 02 July 2008.

Invited Lecture: RECENT PROGRESS IN EXTERNAL ACOUSTIC-FLEXIBLE STRUCTURAL INTERACTIONS, CIMNE, University of Catalunya, Barcelona, 11 June 2008

2007:

Keynote Lecture: Partitioned Modeling and Analysis of Coupled Dynamical Systems, the Annual Meeting of Korean Society of Mechanical Engineers, Busan, Korea, 01 June 2007.

Invited Seminar: Recommendations for KAIST Admission Policy and A Brief Introduction of US Admission Practices, KAIST, Daejeon, Korea, 29 May 2007.

Keynote Lecture: Marriage la mode: Computational Mechanics, Lagrange Multipliers and Coupled Physics, 2007 Spring Meeting of Fracture Mechanics Division, Korean Society of Mechanical Engineers, Tongyeong, Korea, 06 April 2007.

2006:

Keynote Lecture: Partitioned Modeling of Coupled Dynamical Systems, Theory and Applications, The 8th International Conference on Motion and Vibration Control (MOVIC 2006), 27-30 August 2006, KAIST, Daejeon, Korea.

Keynote lecture: D'Alembert-Lagranges Principal Balance Equations, Their Origin and Applications, 2006 Annual conference of Noise/Vibration Division, Korean Society of Mechanical Engineers, Hwasoon, Korea, 16-17 November 2006.

Invited Seminar: BEM-BEM and BEM-FEM Coupling Procedures, University of Seville, 30 May - 02 June 2006.

Invited Seminar: New Interpretations of Lagrange Multipliers and Applications, Ecole Polytechnique, Palaiseau, France, 29 June 2006

Invited Seminar: External Acoustic-Structure Interactions, CNAM, Paris, France, 29 June 2006

Semi-Plenary Lecture: Partitioned Analysis at WCCM-VII, Los Angeles, 17-20 July 2006.

Plenary Lecture: Partitioned Modeling of Coupled Dynamical Systems: Theory and Applications, Proc. the 8th International Conference on Motion and Vibration Control, 28-31 August 2006, Daejeon, Korea.

Plenary Lecture: A Revisit to D'Alembert-Lagranges Principal Balance Equations, Their Origin and Applications, The KSNVE Annual Autumn Conference, 16-17 November 2006, Hwasoon, Korea.

2005:

Invited Seminar: New Model for Acoustics, Sandia National Laboratories, 20 April 2005.

Invited Seminar: Structural Modeling for Experiment Design, Los Alamos National Laboratory, 21 April 2005.

Invited Seminar: High-Fidelity Multi-Physics Simulation, Polytechnique de Grenoble, 22 June 2005

Semi-Plenary Lecture: Partitioned Analysis at Eurodyn2005, Paris, 07 Sept. 2005

Invited Seminar: Membranes for Space Applications, CNAM, Paris, 12 October 2005

2004:

"Reduced-Order Modeling of Complex Structural Systems," NATO Advanced Studies Workshop, University of Ljubliana, Slovenia, 12-17 May; and, Conservatoire des Arts et Metiers (CNAM), Paris, France, June 8, 2004.

"Membranes for Space Structures," University of Maryland, March 26, 2004.

"Membranous Space Structures," NASA Langley Research Center, March 24, 2004.

"Localization of Lagrange Multipliers for Partitioned Modeling of Multi-physics Problems," Korea Advanced Institute of Science and Technology, July 16, 2004.

"New Approximation of External Structure-Acoustic Interactions," Sandia National Laboratories, December 2, 2004; Seoul national University, Seoul, Korea, November 15, 2004; Korea Advanced Institute of Science and Technology, Daejeon, Korea, November 17, 2004.

"Computational Mechanics Activities at Center for Aerospace Structures," Samsung Research Center, Siheung, Korea, November 16, 2004.

2003:

"Multi-Physics Modeling of MEMS Devices and Model Validation," the Department of Mechanical Engineering, University of Michigan, 11 April, 2003; the Department of Mechanical Engineering, Northwestern University, 02 May, 2003. K. C. Park,

"Membranes for Space Structures," CNAM, Paris, 26 May 2003; KAIST, Daejeon, Korea, 8 July 2003.

"Localized Modeling of Interaction Interfaces, Multiphysics Coupling, and Domain Decomposition," the Industrial Mathematics Initiative, KAIST, 1-3 July 2003, Daejeon, Korea.

"A New Membranous Structural Concept for Solar Sails and Reflectors," NASA/Langley Research Center, 20 October 2003.

"Switching Speed and Actuation Energy of RF MEMS Switches," Raytheon RF Symposium, St. Petersburg, FL, 21-23 April 2003.

2002:

"Computational Mechanics Activities of K. C. Park during the 70-80s," the FEM42 Celebration Workshop, Ibiza, Spain, 30 May 2002.

"Flexibility-Based Component Mode Synthesis," Seoul National University, Seoul, Korea, 6 December 2002.

"Advanced Lectures on Computational Dynamics" (a total of 8 lectures), Korea Advanced Institute of Science and Technology, Daejeon, Korea, 04 November -13 December 2002.

"Partitioned Analysis for coupled systems" (a total of 6 lectures), Korea Advanced Institute of Science and Technology, 3 June - 12 July 2002.

"New design concept of membranous space structure," Institute of Space and Astronautical Sciences, Tokyo, Japan. 25 July 2002.

2001:

"Modeling of Nonlinear Structural Joints via Experimental-Analytical Localized Flexibility Identification," the XIXth International Modal Analysis Conference, Kissimmee, FL, 6 February 2001.

"Interfacing Nonmatching FEM Meshes: The Zero Moment Rule," Bregnenz, Germany, 22 may 2001.

"Localized Modeling of Contact-Impact problems and nonmatching interfaces," Copper Mountain

Multigrid Conference, 4 April 2001.

"Health Monitoring of Structural Systems and Damage Detection Using Localized Flexibility Methods," a keynote lecture at Korea Advanced Institute of Science and Technology, Taejeon, Korea, November 11, 2001.

"Modeling of Structural Joints," the NSF/Sandia Workshop on Modeling and Simulation of Structural Systems with Joint Interfaces, 25 June 2001

"Construction of Nonmatching Interfaces," Sandia National Laboratory, 30 April 2001.

"A stress and energy conserving algorithm for nonmatching interfaces," MIT, 13 june 2001.

"A Simple Algorithm for Localized Construction of Nonmatching Structural Interfaces," USMC-CMIV, Dearborn, MI, 02 August 2001.

"Structural system identification: from reality to models," invited lecture, EUROMECH 427, Cachan, France, 24 September 2001.

CURRENT RESEARCH ACTIVITIES

Fluid-structure interaction, algorithms for wave propagation, metamaterials, multi-scale methods, modeling of large-scale engineering systems, system identification, development of methods for underwater acoustics analysis.

CONSULTING ACTIVITIES

1994–present: Sandia National Laboratories, Alburquerque, NM on pyroshock techniques for satellite separation from the launcher and GM engine mount design.

1985–1994: Lockheed Missiles and Space Co., Inc., Palo Alto, Ca. on shell structural analysis by finite element methods and structural acoustics.

1993–present: Avery Corp., Cleveland, OH on control of emulsion and drying processes for paper products.

1992–1994: Samsung Aerospace Co., Seoul, Korea on satellite business development and technology assessment of military fighter jet planes.

1986–1994: Jet Propulsion Laboratory, California Institute of Technology, Pasadena, Ca. on dynamics of large space structures.

1990–1993: Charles Draper Laboratories, Cambridge, Ma. on real-time simulation of space station attitude keeping and space robots.

1991–1994: Laboratorie de Mechanique et Technologie, Ecole Normale Supérieure de Cachan, Paris, France on parallel computations and transient nonlinear analysis techniques.

PUBLICATIONS

Web of Science citations: over 2,000 citations with h-index=27
(http://www.researcherid.com/rid/E-8898-2010);

Google scholar citations: over 5,000 with h-index=40, i10-index = 98

http://scholar.google.com/citations?user=wut%5C_ihkAAAAJ&user=wut_ihkAAAAJJ

1. Kwon, Byung-Jin; Lee, Dooho; Park, Kwang-Chun; Oh, Il-Kwon, "Tunable acoustic waveguide

based on vibro-acoustic metamaterials with shunted piezoelectric unit cells," submitted.

2. Min-Soo Jeong, Sang-Woo Kim, In Lee, Seung-Jae Yoo, and K. C. Park, "Investigation of Wake Effects on Aeroelastic Responses of Horizontal-Axis Wind-Turbines", *AIAA Journal*, Vol. 52, No. 6 (2014), pp. 1133-1144. doi: 10.2514/1.J051899

3. Yeonseung Lee, Soonhung Han, and K. C. Park, "A scaling law for form drag coefficients in incompressible turbulent flows," Ocean Engineering, 92 (2014) 75-82.

4. Jose A. Gonzalez, Ramon Abascal and K. C. Park, "Partitioned analysis of flexible multibody systems using filtered linear finite element deformational modes," International Journal for Numerical Methods in Engineering. Volume: 99, Issue: 2, 102-128, 2014. DOI: 10.1002/nme.4675

5. J. G. Kim, P. S. Lee, and K. C. Park, "A mode selection method for structural component mode synthesis," submitted to International Journal for Numerical Methods in Engineering.

6. Carlos A. Felippa, Qiong Guo and K. C. Park, "Mass Matrix Templates: General Description and 1D Examples," to appear in Archives For Computational Methods In Engineering, 2014.

7. K. T. Kim, P. S. Lee, K. C. Park, "A direct coupling method for 3D hydroelastic analysis of floating structures," International Journal for Numerical Methods in Engineering Volume 96, Issue 13, 842-866, 2013. DOI: 10.1002/nme.4564

8. S. S. Cho, H. Huh and K. C. Park, "A method for multi-dimensional wave propagation analysis via component-wise partition of longitudinal and shear waves," International Journal for Numerical Methods in Engineering, Volume 95, Issue 3, pages 212237, 20 July 2013. DOI: 10.1002/nme.4495

9. Min-Soo Jeong and In Lee, Seung-Jae Yoo, K. C. Park, "Torsional Stiffness Effects on the Dynamic Stability of a Horizontal Axis Wind Turbine Blade," *Energies* 2013, 6(4), 2242-2261; doi:10.3390/en6042242.

10. Jeong MS, Kim SW, Lee I, Yoo SJ and Park KC. The impact of yaw error on aeroelastic characteristics of a horizontal axis wind turbine blade. RENEWABLE ENERGY, Volume 60, 2013, 256-268. DOI: 10.1016/j.renene.2013.05.014.

11. H.-L. Xing, J. H. Jeon, K. C. Park and I. K. Oh, "Active Disturbance Rejection Control for Precise Position Tracking of Ionic Polymer-Metal Composite Actuators ," IEEE/ASME Transactions on Mechatronics, Vol. 18, 86-95, 2013. DOI: 10.1109/TMECH.2011.2163524.

12. Hossein Moeinkhah, Jin-Young Jung, Jin-Han Jeon, Ali Akbarzadeh, Jalil Rezaeepazhand, K C Park and Il-Kwon Oh, "How does clamping pressure influence actuation performance of soft ionic polymermetal composites?," Smart Materials and Structures. Volume 22, Issue 2, 2013. DOI: 10.1088/0964-1726/22/2/025014.

13. Jose A. Gonzalez, Luis Rodrguez-Tembleque, K. C. Park and Ramon Abascal, "The nsBETI method: an extension of the FETI method to non-symmetrical BEM-FEM coupled problems," International Journal for Numerical Methods in Engineering, Volume 93, Issue 10, 2013, 10151039. DOI: 10.1002/nme.4418.

14. J. A. González, K. C. Park, I. Lee, C. A Felippa and R. Ohayon, "Partitioned Vibration Analysis of Internal Fluid-Structure Interaction Problems," International Journal for Numerical Methods in Engineering, 2012. DOI: 10.1002/nme.4336

15. K. C. Park, S.J Lim and H. Huh, "A method for computation of discontinuous wave propagation in heterogeneous solids: basic algorithm description," International Journal for Numerical Methods in Engineering, Published online: 8 FEB 2012 — DOI: 10.1002/nme.4285.

16. S. I. Cho, S. J. Yoo, E. H. Kim, S. W. Kim, I. Lee, K. C. Park and I. B. Kwon, "Effects of Bonding Layer Characteristics on Strain Transmission and Bond Fatigue Performance," Journal of

Adhesion Science and Technology, 26 (2012) 1325–1339.

17. J. A. González and K. C. Park, "A simple explicitimplicit finite element tearing and interconnecting transient analysis algorithm," International Journal for Numerical Methods in Engineering 2012; 89:1203–1226.

18. J. Song, J. H. Jeon, I. K. Oh and K.C. Park, "Electro-active polymer actuator based on sulfonated polyimide with highly conductive silver electrodes via self-metallization, Macromolecular Rapid Communications, vol.32 (19), 2011, 1583-1587.

19. S. S. Cho, H. Huh and K. C. Park, "A Time-Discontinuous Variational Integrator for Stress Wave Propagation Analysis in Solids," *Comput. Methods Appl. Mech. Engrg.*, 200 (2011) 649 - 664.

20. C. A. Felippa, K. C. Park, M. R. Ross, "A Classification of Interface Treatments for FSI," in: Fluid Structure Interaction II (ed. by Hans-Joachim Bungartz, Miriam Mehl and Michael Schfer), Lecture Notes in Computational Science and Engineering 73, Springer-Verlag, 2010, pp. 27-52.

21. K.C. Park, R. Ohayon, C.A. Felippa and J.A. GonzÍez, "Partitioned formulation of internal and gravity waves interacting with flexible structures," *Computer Methods in Applied Mechanics and Engineering*, Volume 199, Issues 9-12, 15 January 2010, Pages 723-733

22. Markovic D, Ibrahimbegovic A, Park KC, "Partitioning based reduced order modeling approach for transient analyses of large structures," *ENGINEERING COMPUTATIONS*, Volume: 26 Issue: 1-2 Pages: 46-68. 2009.

23. Moonseok Lee, Youn-Sik Park, Youngjin Park, K.C. Park, "New approximations of external acousticstructural interactions: Derivation and evaluation," *Computer Methods in Applied Mechanics and Engineering*, Vol. 198 (15-16) pp.1368-1388, 2009

24. M. Ross, M. A. Sprague, C. A. Felippa and K. C. Park, "Treatment of acoustic fluid-structure interaction by localized Lagrange multipliers and comparison to alternative interface coupling methods," *Computer Methods in Applied Mechanics and Engineering*, 198 (9-12), p.986-1005, 2009.

25. K. C. Park, Carlos A. Felippa, Roger Ohayon, "The d'Alembert-Lagrange principal equations and applications to floating flexible systems," *International Journal for Numerical Methods in Engineering*, Vol. 77(8), 2009, pp. 072-1099.

26. Seo YH, Lee CW, Park KC, Crack Identification in a Rotating Shaft via the Reverse Directional Frequency Response Functions, *JOURNAL OF VIBRATION AND ACOUSTICS-TRANSACTIONS OF THE ASME*, Volume: 131 Issue: 1 Article Number: 011012, 2009.

27. M. R. Ross, C. A. Felippa, K. C. Park and M. A. Sprague, Treatment of acoustic fluid-structure interaction by localized Lagrange multipliers: Formulation. *Computer Methods in Applied Mechanics and Engineering*, 197 (33), p.3057-3079, 2008.

28. Gyeong-Ho Kim and K.C. Park, A Continuum-based Modeling of MEMS Devices for Estimating Their Resonant Frequencies, *Computer Methods in Applied Mechanics and Engineering* 198 (2), 234-244, 2008.

29. C. A. Felippa and K. C. Park, Model-based partitioned analysis of coupled problems, chapter 4 in: Computational Aspects of Structural Dynamics and Vibrations, ed. by G. Sandberg and R. Ohayon, CISM Courses and Lectures, Vol. 505, Springer-Verlag, Berlin, 2008, 171–216.

30. Sebastian Kreissl, Hiraku Sakamoto, K. C. Park, Horst Baier, Design Improvements of a Solar Sail for Stiffness Increase and Passive Attitude Stabilization, Proc. AIAA Conference, 04-24-2007 Honolulu, Hawaii, Paper # AIAA-2007-1802.

31. K. C. Park, Partitioned Modeling of Coupled Dynamical Systems: Theory and Applications, Proc. the 8th International Conference on Motion and Vibration Control (MOVIC 2006),

32. H. Sakamoto, Y. Miyazaki and K. C. Park, "Finite Element Modeling of Sail Deformation under Solar Radiation Pressure," *Journal of Spacecraft and Rockets*, Vol. 44, No. 3, May-June 2007, 514-522.

33. T. Akita, K. Nakashino, M. C. Natori and K. C. Park, Modeling of Wrinkled Membranes Based on Projection Operator, *International Journal of Numerical Methods in Engineering*, Volume 71, Issue 10, 03 September 2007, 1231-1259

34. H. Sakamoto, K. C. Park, and Y. Miyazaki, Evaluation of membrane structure designs using boundary web cables for uniform tensioning, *ACTA ASTRONAUTICA*, 60 (10-11): 846-857 MAY-JUN 2007.

35. J. A. González, K. C. Park and C. A. Felippa, FEM and BEM coupling in elastostatics using localized Lagrange multipliers, *International Journal of Numerical Methods in Engineering*, 2007; Volume 69: 2058-2074.

36. D. Markovic and K. C. Park, Reduction of substructural interface degrees of freedom in flexibility-based component mode synthesis, *International Journal of Numerical Methods in Engineering*, 2007; 70:163-180.

37. H. Sakamoto, K. C. Park, and Y. Miyazaki, Distributed and localized active vibration isolation in membrane structures, *Journal of Spacecraft and Rockets*, 43(5): 1107-1116, September-October 2006.

38. H. Sakamoto and K. C. Park, Localized vibration isolation strategy for low- frequency excitations in membrane space structures, *Journal of Vibration and Acoustics*, 128(6): 673-802, December 2006.

39. Hunsang Jung, Youngjin Park, Youn-Sik Park and K. C. Park, " Mode Decoupling Controller for Feedback Model Updating," Paper No. IMECE2004-5969, *Proceedings of IMECE04 2004 ASME International Mechanical Engineering Congress & Exposition*, Anaheim, CA, USA, September 14-19, 2004.

40. Y. Miyazaki and K. C. Park, "A formulation of conserving impact system based on localized Lagrange multipliers," *International Journal of Numerical Methods in Engineering*, Volume 68, Issue 1, 2006, 98-124.

41. C. A. Felippa and K. C. Park, Underwater shock analysis on stiffened shells: the source of staggered solution procedures, abstract in *Proc. 5th IACM-IASS Int. Conf. on Computation of Shells and Spatial Structures*, ed. by E. Ramm, W. A. Wall, K.-U. Bletzinger, and M. Bischoff, TU Munchen Press, 2005.

42. C. A. Felippa and K. C. Park, Taming complexity in the synthesis of partitioned analysis methods for coupled systems, abstract in *Proc. Computational Methods for Coupled Problems in Science and Engineering*, ed. by M. Papadrakakis, E. Oñate and B. Schrefler, CIMNE, Barcelona, 2005.

43. H. Sakamoto, K. C. Park, and Y. Miyazaki, Dynamic wrinkle reduction strategies for cable suspended membrane structures. *Journal of Spacecraft and Rockets*, **42(5)**:850-858, September-October 2005.

44. K. C. Park, "Partitioned formulation with localized Lagrange multipliers and its applications," in: *Structural Dynamics (Eurodyn 2005)*, Millpress, Roterdam, 2005, pp. 67-76.

45. D. Markovic and K. C. Park, "Reduction of Interface Degrees of Freedom in Flexibility-Based Component Mode Synthesis," *Proc. 5th EUROMECH Nonlinear Dynamics Conference*, Eindhoven, The Netherlands, August 7-12, 2005, pp. 900-907.

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