BIOGRAPHICAL RECORD

1) Name: Shuzo Murakami

2) Date of Birth: November 24th, 1942

3) Academic Degrees:

University of Tokyo, Department of Engineering, Environmental Control, 1972, Doctor of Eng. University of Tokyo, Department of Engineering, Architecture Course, 1967, Master of Eng. University of Tokyo, Department of Engineering, Faculty of Architecture, 1965, Bachelor of Eng.

4) Academic Appointments/Experience:

1976/04-00/09 Lecturer (Non Regular),

2001-2008/03 Professor, Keio University

1985-2001 Professor, I.I.S., University of Tokyo

1974-1985 Associate Professor, I.I.S., University of Tokyo

1970-1974 Lecturer, I.I.S., University of Tokyo

2008/04-12/03 Professor, (Graduate School of System Design and Management) Keio University 2006-2009 Advisory Professor, Tongji University University of Tokyo 2003-Emeritus Professor, 1990/04-91/03 Adviser to the President. University of Tokyo 1988/04-Lecturer (Non Regular), Department of Engineering, University of Tokyo 1986/04-98/03 Director, Center for Development of Instrumentation Technology, IIS, University of Tokyo 2001/10-Advisory Research Fellow IIS, University of Tokyo 2000/04-01/05 Visiting Professor, Keio University Visiting Professor, Technical University of Denmark 1999/10-11 1999/07-12 Adviser, Environmental Planning, The United Nations University 1996/10-99/03 Visiting Researcher, Advanced Research Center for Science and Engineering, Waseda University Invited Researcher. Advanced Building Science and Technology Research Center 1993 -99 College of Engineering Yonsei University, Seoul, Korea 1990/04-98/03 Lecturer (Non Regular), Waseda University 1988/04-94/09 Lecturer (Non Regular), Tokyo Institute of Technology

5) Research:

For more than 30 years, Dr. Murakami has been in charge of the research on Building and Environmental Control Engineering, mainly at the Institute of Industrial Science, University of Tokyo (from 1972 to 2000), at the Department of Engineering, Keio University (from 2001 to 2007) and at Incorporated Administrative Agency Building Research Institute (from 2007 to 2012) since graduating from the University of Tokyo (Department of Engineering, Faculty of Architecture).

He has been engaged in special research of the experimental study and the numerical simulation of turbulent airflow in rooms and around buildings. He has had a great deal of experience on CFD analysis of wind climate from human scale to urban scale. He initiated a new field of CFD Research. He has also conducted extensive interdisciplinary studies concerning global environmental engineering, urban/building environmental engineering, healthy cities, human comfort and health and so on. His achievements concerning energy and sustainability researches are remarkable. He is now working at Institute for Building Environment and Energy Conservation as a President.

6) Professional Society and Committee Affiliations:

2003/07-	President,	Institute for Building Environment and Energy Conservation	
		(Present occupation)	
2008-2014	Coordinating Lead Authors	Intergovernmental Panel on Climate Change (IPCC)	
2008/04-12/03	Chief Executive,	Incorporated Administrative Agency Building Research Institute	
2005/11/18-	Foreign Member,	The Korean Academy of Science and Technology	
2005/10-11/09	Member	Science Council of Japan	
2005/06-07/05	President,	Architectural Institute of Japan	
2005/1-	Honorary Member,	International Building Performance Simulation Association JAPAN	
2004/11-	International Honorary Member,	The Korean Institute of Ecological Architecture and Environment	
2004/03-09/12	Chairperson	Environment Committee, Council for Infrastructure,	
		Ministry of Land, Infrastructure and Transport	
2003/09-08/03	Member of the Advisory Board of	the Center of Excellence Program, Tokyo Polytechnic University	

Tokyo Denki University

2003/07-President, Institute of International Harmonization for Building and Housing 2002/06-04/05 President, The Society of Heating Air Conditioning and Sanitary Engineering of Japan The Central Review Council for Kenchikushi, 2002/05-10/07 Chairman Ministry of Land, Infrastructure and Transport 2002-Member of the International Advisory Board of the International Centre for Indoor Environment and Energy The Technical University of Denmark 2001/01-Member of Fellow, American Society of Heating, Refrigerating and Air-Conditioning Engineers The Society of Heating Air Conditioning and Sanitary Engineering of Japan 2000/06-02/06 Vice-President, 2000/06-Member of the Board of Directors, Japan Association for Wind Engineering 2000/06-02/05 Vice-President, Architectural Institute of Japan 2000/05-02/04 Member of the Board of Directors, The Society of Heating Air Conditioning and Sanitary Engineering of Japan 2000/04-01/03 President, Japan Society of Fluid Mechanics 1999/04-00/03 Vice-President, Japan Society of Fluid Mechanics 1999/04-01/03 Member of the Board of Directors, Japan Society of Fluid Mechanics 1998/10-99/09 President, Japan Society of Computational Fluid Dynamics 1996/06-00/05 President, Japan Association for Wind Engineering 1996/06-2003 Member of Council, The Heat Transfer Society of Japan 1996/05-98/04 Member of the Board of Executive Directors, The Society of Heating Air Conditioning and Sanitary Engineering of Japan 1995/06-97/05 Member of the Board of Directors, Japan Society of Fluid Mechanics 1995/01-96/12 Member of the Board of Directors, Architectural Institute of Japan 1995-2012 Member of Task Committee on Outdoor Human Comfort, American Society of Civil Engineers 1993/04-95/03 Member of Council. The Society of Heating Air Conditioning and Sanitary Engineering of Japan 1992/10-12/12 Member of the Board of Directors, Japan Society of Computational Fluid Dynamics 1991-1994 Advisor of Task Committee on Numerical Flow Modeling, American Society of Civil Engineers 1991/05-93/04 Member of the Board of Directors, The Society of Heating Air Conditioning and Sanitary Engineering of Japan 1990-1992 Voting Member of TG / IEC Indoor Environmental Calculations, American Society of Heating, Refrigerating and Air-Conditioning Engineers 1990-1991 Member of Task Committee on Air Flow around Building (TC 2.5), American Society of Heating, Refrigerating and Air-Conditioning Engineers 1989/04-95/03 Member of the Board of Directors, The Visualization Society of Japan 1986/06-96/05 Member of the Board of Directors, Japan Association for Wind Engineering

7) Editorial Activities:

, Laitoriar in	ctivities.			
2009-	Member of Editorial Board	International Journal "Building Research & Information"		
2007-	Member of the inaugural Editorial Board:	International Journal "Building Simulation"		
2000-	Member of the Editorial Advisory Board,			
"Building and Environment", The International Journal of Building Science and its Applications				
1998/02-	Member of the Editorial Board,	International Journal "Wind and Structures"		
1997-2005	Member of the Board of Advisory Editors,	The Journal "Flow, Turbulence and Combustion"		
1995-2000	Member of Regional Editors,			
"Building and Environment", The International Journal of Building Science and its Applications				
1994-	Member of Advisory Editors,	International Journal of Heat and Fluid Flow		
1985-	Member of Editorial Board	Journal of Wind Engineering and Industrial Aerodynamics		

8) Present Occupation

From: 2003/07- to Date

Employer's name: Institute for Building Environment and Energy Conservation

Address: Zenkyoren bldg. Kojimachikan, 3-5-1. Kojimachi, Chiyoda-ku, Tokyo

Title of Post: President

9) Principal Technical Interest Areas:

- 1. Computational wind engineering
- 2. Turbulence flow simulation
- 3. Air flow around buildings, pedestrian level winds
- 4. Contaminant diffusion around buildings
- 5. Flow visualization by laser light sheet
- 6. Numerical and experimental study on room air distribution
- 7. Natural ventilation, ventilation efficiency
- 8. Air flow within room
- 9. Evaluation of thermal comfort using a numerical thermal manikin
- 10. Study on sick building and sick house
- 11. CFD analysis of wind climate from Human Scale to Urban Scale
- 12. Sustainable building

10) Hono	ors:
The	Grand Prize of AIJ 2014

(AIJ: Architectural Institute of Japan)					
Planning and Urban GOLD STARS	Routledge	2012			
Editor's Choice Articles	Taylor & Francis	2012			
ALAN G. DAVELPORT MEDAL	IÅWE	2007			
Award of Excellency in Research	SB07-SEOUL	2007			
SHASEJ best paper award	SHASEJ	2007			
(SHASEJ: Society of Heating, Air-Conditioning and Sanitary Engine	(SHASEJ: Society of Heating, Air-Conditioning and Sanitary Engineers of Japan)				
SHASEJ best paper award	SHASEJ	2006, 2006			
Japan Association for Wind Engineering Award 2003	JAWE	2004			
(JAWE: Japan Association for Wind Engineering)					
John Rydberg Gold Medal	SCANVAC	2002			
(SCANVAC: Scandinavian Federation of Heating, Ventilating and Sanitary En	gineering Associations in Denmark, Fin	nland, Norway and			
Swedan)					
SHASEJ best paper award	SHASEJ	2002			
SHASEJ best paper award	SHASEJ	2001			
ASHRAE Fellow Award	ASHRAE	2001			
(ASHRAE: American Society of Heating, Refrigerating and Air-Cond	itioning Engineers)				
SHASEJ best paper award	SHASEJ	2000			
SHASEJ best paper award	SHASEJ	1998			
1997 CROSBY FIELD AWARD	ASHRAE	1998			
"Flow and Temperature Fields Around Human Body with Various Room A	ir Distribution, Part 1 – CFD Study	on Computational			
Thermal Manikin"					
SHASEJ best paper award	SHASEJ	1997			
SHASEJ best paper award	SHASEJ	1995			
SHASEJ best paper award	SHASEJ	1994			
SHASEJ best paper award	SHASEJ	1992			
SHASEJ best paper award	SHASEJ	1992			
SHASEJ best paper award	SHASEJ	1991			
AIJ award	AIJ	1989			
(AIJ: Architectural Institute of Japan)					
SHASEJ best paper award	SHASEJ	1988			
SHASEJ best paper award	SHASEJ	1975			

AIJ

2014

11) Scientific Society Memberships:

Member (Coordination Lead Authors)

IPCC, 5th Assessment Report, AR5 Authors, Chapter 9 (2008-2014)

(IPCC; Intergovernmental Panel on Climate Change)

Member (International Honorary Member)

The Korean Institute of Ecological Architecture and Environment (2004-)

Member The Institute of Life Cycle Assessment, Japan (2004-)

Member (Fellow) American Society of Heating, Refrigerating and Air-Conditioning Engineers, INC.

(1989-2008)

Member Architectural Institute of Japan (1965-)

Member (Member of the Board of Directors)

The Society of Heating, Air Conditioning and Sanitary Engineering of Japan

(1965-2008)

Member Japan Association for Wind Engineering (1986-)

Member Japan Society of Computational Fluid Dynamics (1993-)

Member (President) Japan Society of Fluid Mechanics (1972-)

(Member of the Board of Directors)

Member (Member of Council) The Japan Society Computational Engineering and Science

Member (Member of Council) The Heat Transfer Society of Japan Member The Visualization Society of Japan

Member The Japan Society of Mechanical Engineers

Member (Member of the Board of Directors)

Japanese Association of Healthy Cities (1999-)

12) Management of International Conferences

Conference Chairman:

- The 2005 World Sustainable Building Conference in Tokyo (SB05), Tokyo, Japan, September 27-29, 2005
- International Symposium on Indoor Air Quality and Health Hazards, Tokyo, Japan, January 8-11, 2003
- The fifth Asia-Pacific Conference on Wind Engineering (APCWE V), Kyoto, Japan, October 21-24, 2001 International Workshop on "CFD for Wind Climate in Cities", Hayama, Japan, August 24-26, 1998
- 5th International Conference on Air Distribution in Rooms (ROOMVENT '96), Yokohama, Japan, Chairperson, 1996
- · Annex 26, Tokyo, Japan, 1996
- · First International Symposium on Computational Wind Engineering (CWE92), Tokyo, Japan, Chairman, 1992
- · International Symposium on Room Air Convection and Ventilation Effectiveness (ISRACVE), Tokyo, Japan, Chairperson, 1992

Organizing Committee

- The 2005 World Sustainable Building Conference in Tokyo (SB05), Tokyo, Japan, September 27-29, 2005
- The fifth Asia-Pacific Conference on Wind Engineering (APCWE V), Kyoto, Japan, October 21-24, 2001
- · International Conference on Healthy Cities and Urban Policy Research, Tokyo, Japan, March 12-16, 2000
- · Building Simulation '99 (BS '99), Kyoto, Japan, 1999
- 5th International Conference on Air Distribution in Rooms (ROOMVENT '96), Yokohama, Japan, Chairperson, 1996
- · ISCFD-SENDAI, Sendai, Japan, 1993
- · International Symposium on Room Air Convection and Ventilation Effectiveness (ISRACVE), Tokyo, Japan, Chairperson, 1992
- · First International Symposium on Computational Wind Engineering (CWE92), Tokyo, Japan, Chairman, 1992
- The Sixth International Symposium on Flow Visualization (6th ISFV), Yokohama, Japan, 1992
- BBAA2, Melbourne, Australia, 1992
- IV-ICCBE, Tokyo, Japan, 1991
- ISCFD-NAGOYA, Nagoya, Japan, 1989
- International Conference on Urban Climate, Planning and Building, Kyoto, Japan, 1989
- International Symposium on SCALE MODELING, Tokyo, Japan, 1988
- BBAA, Kyoto, Japan, 1988
- The Fourth International Symposium on the Use Computers for Environmental Engineering Related to Buildings, Tokyo, Japan, 1983

Advisory Committee, International Advisory Committee, International Advisors

- The 2011 World Sustainable Building Conference in Finland, Helsinki, October 18-21, 2011
- · Sixth International Colloquium on Bluff Body Aerodynamics and Applications (BBAA6), Milano, Italy, 2008
- · 3rd International Symposium on Turbulence and Shear Flow Phenomena, Sendai International Center, Sendai, Japan, 25-27 June 2003
- Indoor Air 99, UK, August 8-13, 1999
- · Roomvent '98, Stockholm, Sweden, June 14-17, 1998
- 2nd International Conference on Numerical Methods in Engineering (2ND NUMETE), Malaysia
- Second International Symposium on Computational Wind Engineering (CWE96), USA, 1996
- · Second International Conference, Indoor Air Quality, Ventilation and Energy Conservation in Buildings, Montreal, Canada, 1995
- International Conference "Building Design, Technology and Occupant Well Being in Temperate Climate", Brussels, Belgium, 1993
- Third Asia-Pacific Symposium on Wind Engineering (APSOWE III), Hong Kong, 1993
- ROOMVENT '92, Aalborg, Denmark, 1992
- INDOOR Air Quality, Ventilation and Energy Conservation, 5th International Jacques Cartier Conference, Montreal, Canada, 1992
- Second International Colloquium on Bluff Body Aerodynamics and Applications (BBAA2), Melbourne, Australia, 1992

Conference Scientific Committee, International Technical Committee, International Scientific Committee

- The 2010 World Sustainable Building Conference in Espoo, Finland, September 22-24, 2010
- · Seventh Healthy Building conference HB 2003 (Healthy Buildings 2003), Singapore, July 13-17, 2003
- · ICOSSAR '01, the International Conference on Structural Safety and Reliability, USA, 2001
- International Conference on Indoor Air Quality, Ventilation and energy conservation in Building (IAQVEC 2001), Canada, 2001
- · Bluff Body Aerodynamics & Applications IV (BBAA IV), Bochum, Germany, 2000
- · ROOVENT 2000, UK, 2000
- The 3rd International Symposium on Heating, Ventilation and Air Conditioning, Shenzhen, Guangzhou province, P. R. China, November 1999
- · Civil & Environmental Engineering Conference New Frontiers & Challenger, Thailand
- 7th International Conference on Structural Safety and Reliability (ICOSSAR '97), Kyoto, Japan, November 24-28, 1997

13) Invited lectures:

Seminar at universities:

- "Sustainable Design of Houses and Cities in Japan" International Symposium by IRDA, Universiti Teknologi Malaysia, December 13, 2011
- "New Trend in CFD application to HVAC engineering Coupled Simulation of Convection, Radiation, and HVAC Control for Attaining Given Operative Temperature -" Special Workshop, Technical University of Denmark, October 27, 1999
- · "Overview of Japanese Project
 - Coupled Analysis of Emission, Sorption and Diffusion of Chemical Pollutants in Ventilated Room by CFD." Denmark-Japan workshop, Technical University of Denmark, October 11-12, 1999
- "New Trend in CFD application to HVAC engineering Coupled Simulation of Convection, Radiation, and HVAC Control for Attaining Given Operative Temperature -"
 Technical University of Denmark, October 20 and 27, 1999
- "Special Seminar Series Building Technology Program, Department of Architecture and MIT Alliance for Global Sustainability" "Current status of CFD Applications on Indoor Climate Engineering" Monday, August 4, "Assessment of Human Comfort of Outdoor Climate by Coupled Simulation of Heat, Mass and Moisture Transport. CFD Analysis of Urban Heat Island in Tokyo: Effects of Land-Use Conditions on Urban Climate"
 - Tuesday, August 5, "CFD Study on Flowfields Around Structures with LES and RANS Models" Wednesday, August 6, Special Seminar Series, MIT, Cambridge, Massachusetts, USA, August 4-6, 1997
- "Comparison of LES and Various Turbulence Models Applied to Bluff Body Aerodynamics"
 Seminar, UMIST, Manchester, United Kingdom, March 29, 1993
- "Numerical Study on Velocity-Pressure Field and Wind Forces for Bluff Bodies by k-ε, ASM and LES" Fluid Mechanics, Hydraulics and Wind Engineering Program, Department of Civil Engineering, Colorado State University, Fort Collins, Colorado, USA, April 15, 1992
- "Numerical Simulation of Velocity Pressure Field for Bluff Bodies"
 Wind Engineering Seminar, Civil Engineering, Wind Engineering Research Center,
 Texas Tech University, Lubbock, Texas, USA, April 17, 1992
- · "Computer Studies of Airflow"
 - Seminar, Monash University, Clayton, Victoria, Australia, December 4, 1992
- · "Computer Studies of Airflow"
 - Special Seminar, University of Auckland, Auckland, New Zealand, December 10, 1992
- "Visualization of Air Flow in and around Buildings"
- Korea Institute of Energy and Resources, Daejeon, Korea, April 26, 1990
- · "Computational Wind Engineering"
 - Special Seminar, 1990 Spring Convention of Architectural Institute of Korea,
- The Architectural Institute of Korea, Seoul, Korea, April 28, 1990
- · "Visualization and Numerical Simulation of Air Flow in Clean Room"
- Seoul National University, Seoul, Korea, April 29, 1990
- · "Numerical Simulation of Turbulent Airflow in a Room"
 - Special Seminar, Department of Mechanical Engineering, University of British Columbia,
 - Vancouver, British Columbia, Canada, June 27, 1989
- · "Numerical Simulation of Air Flow around Buildings"
 - Seminar, Stanford University, USA, 1986

Invited lecture, extraordinary lecture, Key Speaker's presentation and invited presentation at international conference:

· "Future City" Initiative and green innovation: Creation of new values through the integration environment, society and economy" 3rd International Forum on the "Future City" Initiative, Kitakyushu, Japan, October 19, 2013

- · "Promotion of Environmentally-Sustainable Cities in Japan and Assessment of City Performance by CASBEE-City"
 - 4th High Level Seminar on Environmentally Sustainable Cities, Hanoi, Viet Nam, March 21-22, 2013
- · "Assessment of Malaysian and Japanese cities with CASBEE-city" Japan-Malaysia Symposium on Sustainable Cities in Asia, Kuala Lumpur, Malaysia, January 22, 2013
- "Initiatives for Promotion of Green Buildings and Green Cities in Japan", Japan-Germany Conference on Policies for Improving the Environment Performance of Buildings, Munich, Germany, January 13-15, 2013
- · "The "Future City" Initiative Message from Japan regarding a resolution for globally common issues-" Rio+20 Official Side Event, Rio de Janeiro, Brazil, June 20-21, 2012
- "Challenges in developing Low-Carbon and Sustainable Cities: Lessons and Ideas from Japan for Iskandar Malaysia"
 Conference On Developing A Sustainable Metropolis, Malaysia, December 12, 2011
- · "Cross Scale Structure of CASBEE" SB11 The World Sustainable Building Conference in Helsinki, Finland Oct 18-21, 2011
- · "Development of CASBEE-City" SB10 The 2010 World Sustainable Building Conference in Espoo, Finland, September 22-24, 2010
- · "Eco-Model-City Program towards Creation of Low-Carbon Society", AIK 2009 Annual Conference, Korea, October 24, 2009
- "Assessment Tools for Building Performance to Promote Energy Efficiency in the Building Sector", IEA Paris, International Standards to Promote Energy Efficiency and Reduce Carbon Emissions, Paris, France, March 16-17, 2009
- · "Progress in the Use of CASBEE", The 7th Japan-France Housing and Building Conference in Paris, November 17, 2008
- "Long-Term Strategy for Energy Saving in the Building Sector in Japan" The 29th AIVC Conference in Kyoto, Japan, October 14-16, 2008
- "Market Transportation brought about by Necessity for Reducing Environmental Risks –CASBEE application to property appraisal for promoting low carbonization-" SB08 The World Sustainable Building Conference in Melbourne, Australia, September 21-25, 2008
- "Long-Term Strategy for Energy Saving in the Building Sector in Japan", SET2008- 7th International Conference on Sustainable Energy Technologies in Seoul, Korea, August 24-27, 2008
- "Increasing Compliance through Stakeholder Incentives to Change their Behaviors", Meeting Energy Efficiency Goals: Enhancing Compliance, Monitoring and Evaluation, Paris France, 28 February 2008
- · "Promotion of Sustainable Buildings Based on Performance Assessment", Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2007) Sendai, Japan, 28-30 October 2007
- · "Spread of CASBEE and Market Transformation towards Sustainable Building", International Conference on Sustainable Building Asia (SB07 Seoul), Seoul, Korea, 27-29 June 2007
- "Development of Robust Environmentally-Conscious Buildings by using "System Life", The 3rd International Conference on Intelligent Green and Energy Efficient Building & New Technologies and Products Expo, Beijing, China, 26 March 2007
- "The role of indicators for policy design and best practices in Japan", SLT/CERT Workshop on Energy-Efficiency in Buildings, Paris France, November, 2006
- · "Building Energy Conservation in Japan The Potential to Raise Energy Efficiency", International Energy Agency, Paris France, November, 2006
- · "Technology and Policy Instruments for Mitigating the Heat-island Effect", International Workshop on Countermeasures to Urban Heat-Islands, Tokyo, 3-4 August 2006
- · "Rating Methodology based on Eco-efficiency for Assessing Projects in Chongming Eco-Island", Eco-Chongming Forum 2006', Chongming (in Shanghai) China
- "CASBEE for Buildings and Cities as an Assessment Tool based on Eco-efficiency", 2nd International Intelligent, Green Building and Energy Efficient Building Technologies and Products Conference & Expo,IGEBC 2006, Beijing China, 28-30 March 2006
- "SB05 Opening Address Action for Sustainability", SB05 The 2005 World Sustainable Building Conference in Tokyo, 27-29 September 2005
- · "Promotion of Sustainable Buildings in Japan", The 1st International Intelligent and Green Building Technologies and Products Conference & Expo, Beijing China, 28-30 March 2005
- "1. Promotion of Sustainable Building based on the Concept of Eco-efficiency 2. CASBEE: New Assessment Tools Based on Environmental Efficiency and Designed to fit All Lifecycle Stages 3. Welcome to the 2005 World Sustainable Building Conference in Tokyo: "Action for Sustainability"", The celebration of the 60th anniversary of the Department of Architecture in National Cheng Kung University, Tainan, Taiwan, November 22, 2004
- · "Promotion of Sustainable Buildings based on the Concept of Eco-efficiency",
 - The Chinese Conference on Sustainable Building 2004, Shanghai, China, September 20-22, 2004
- "CASBEE: New Assessment tools based on Environmental Efficiency and designed to fit all lifecycle stages", Latin-American Conference on Sustainable Building 2004, Sao Paulo, Brazil, July 18-21, 2004
- "From East Asia -the Future of Sustainable Architecture, City and Region",
 - 5th International Symposium on Architectural Interchanges in Asia, Matsue, Japan, June 1-4, 2004
- · "Sustainable Design Strategy of Building/Urban System and Development of CASBEE",
 - KAST(Korean Academy of Science and Technology) International Symposium, Seoul, Korea, November 3-4, 2003
- $\boldsymbol{\cdot}$ "Building Sustainability and Comprehensive Assessment of Building Environment",
 - China Japan Joint Forum on Building and Environment Facilities, Shanghai, China, November 3-4, 2003
- · "Indoor/Outdoor Climate design by CFD based on the Software Platform Developing the CFD Technique from an Analysis Tool to a Design Tool -", International Symposium on TURBULENCE, HEAT AND MASS TRANSFER (THMT-03), Antalya, Turkey, October 12-17, 2003
- "Environmental Design for Indoor/Outdoor Climates by CFD Development of CFD Technique from Analysis Tool to Design Tool -", Ventilation 2003, Sapporo, Japan, August 5-7, 2003
- · "Environmental Design of Indoor/Outdoor Climates Using CFD -Developing the CFD Technique from an Analysis Tool to a Design Tool-"
- Numerical Simulation of Turbulent Flow Research Commemorative Symposium, Tokyo, Japan, June 23, 2003
- "Today's approach for promoting sustainable building in Japan"
 2nd ASIAN FORUM Conference, Tokyo, Japan, January 21, 2003

- "Introduction of Regulations for Countermeasures Regarding Sick House Issues in Japan"
 International Symposium on Indoor Air Quality and Health Hazards, Tokyo, Japan, January 8-11, 2003
- · "Development of Porous-type Residential Building with Voids for adapting Hot & Humid Climate in Asia"

The 2nd International Workshop on Energy and Environment of Residential Building in China, Shanghai, CHINA, October, 2002

· "Assessment and Design of Urban Environment and Landscape"

Landscape Frontier International Symposium , Kitakyushu, Japan, October, 2002

• "CFD Study on the Micro-climate Around the Human Body With Inhalation and Exhalation"

ROOMVENT 2002, 8-11 September, 2002, Copenhagen, Denmark

 "Current Status of Indoor Air Pollution by Chemical Compounds in Japan and the Policy Measures Being Taken by the Japanese Government"

OECD an IEA Joint Workshop, June 2001

· "CFD and Symposium Overview"

3rd International Symposium on Computational Wind Engineering, CWE2000, University of Birmingham, 4-7 September 2000

· "CFD applications in building environment"

The 3rd International Symposium on HVAC, ISHVAC99, Shenzhen, China, 17-19 November 1999

 "Indoor Climate Design Based on Feedback Control of HVAC - Coupled Simulation of Convection, Radiation and HVAC control for Attaining Given Operative Temperature"
 Building Simulation '99 (BS99), Kyoto, Japan, 13-15 September 1999

• "Overview of the developments in the field of Computational Wind Engineering" 10th International Conference on Wind Engineering, Copenhagen, Denmark, June 1999

· "CFD Analysis of Wind Climate from Human Scale to Urban Scale"

IWEF International Workshop on "CFD for Wind Climate in Cities", Hayama, Japan, August 24-26, 1998

· "Current status of CFD application to air-conditioning engineering"

PAN PACIFIC SYMPOSIUM ON BUILDING AND URBAN ENVIRONMENTAL CONDITIONING IN ASIA, Nagoya, Japan, March 15-18,1995

 "CFD ANALYSIS OF WIND-STRUCTURE INTERACTION FOR OSCILLATING SQUARE CYLINDER" Ninth International Conference on Wind Engineering, New Delhi, India, January 9-13, 1995

· "Micro / Macroscopic analysis of airmass and heat transport in a room

- choice of methods and research organization for case studies -"

ROOMVENT '94, Krakow, Poland, June 13-19, 1994

· "On Turbulent Vortex Shedding Flow Past 2D Square Cylinder Predicted by CFD"

Third Asia-Pacific Symposium on Wind Engineering, JW Marriott Hotel, Hong Kong, December 13-15, 1993

· "Wind, Climate, Culture tech."

Matsuo Indoor Climate Symposium, Int'l AI Foundation Cranfield, Institute of Tech. -Iwate Annex, Matsuo, Iwate, Japan, February 26-28, 1993

- "New Scales for Ventilation Efficiency and Their Application based on Numerical Simulation of Room Airflow"
 International Symposium on Room Air Convection and Ventilation Effectiveness, Tokyo, Japan, July 22-24, 1992
- "Comparison of Various Turbulence Models Applied to a Bluff Body"

First International Symposium on Computational Wind Engineering, Tokyo, Japan, August 21-24, 1992

· "Prediction, analysis and design for indoor climate in large enclosures"

ROOMVENT '92, Aalborg, Denmark, September 2-4, 1992

· "Computational Wind Engineering"

The Sixth U.S. National Conference on Wind Engineering, University of Houston, Houston, Texas, USA, March 8-10, 1989

- "Scrutinizing the k- ϵ Turbulence Model by Means of LES for Turbulence Structure around Cube"

ISCFD NAGOYA, Nagoya, Japan, August 28-31, 1989

· "Numerical Simulation of Velocity and Diffusion Fields in Urban Area"

IFHP/CIB/WMO/IGU International Conference on Urban Climate, Planning and Building, Kyoto, Japan, November 6-11, 1989

· "Numerical Simulation of Air Flow around Buildings"

11th International Conference on Numerical Methods in Fluid Dynamics, College of William and Mary,

Williamsburg, Virginia, June 27-July 1, 1988

· "Visualization of Turbulent Flowfield Generated by Numerical Simulation"

Third International Symposium on Refined Flow Modeling and Turbulence Measurements, Tokyo, Japan, July 26-28, 1988

- "Numerical Simulation of Turbulent Flowfield around Cubic Model Current Status and Applications of k-ε Model and LES"
 International Colloquium on Bluff Body Aerodynamics and Its Applications, Kyoto, Japan, October 17-20, 1988
- "Current Status of Numerical and Experimental Methods for Analyzing Flow Field and Diffusion Field in a Room"
 Building Systems: Room Air and Air Contaminant Distribution, University of Illinois at Urbana-Champaign,
 Allerton House, Illinois, USA, December 5-8, 1988
- "Wind Tunnel Modeling Applied to Pedestrian Comfort"
 Wind Tunnel Modeling for Civil Engineering Applications, US Department of Commerce National Bureau of Standards, Gaithersburg, MD, USA, April 14-16, 1982

14) Publications:

Books:

Murakami,S. Iwamura K and Cole J Raymond (2014) "CASBEE, A decade of Development and Application of an Environmental Assessment System for the Built Environment", Institute for Building Environment and Energy Conservation, 297pp.

Murakami,S. (2012) "Smart & Slim Future City", Energy-Forum, 221pp. (in Japanese)

Murakami, S. et al. (2012) "Design Method of LCCM House", Kenchikugijutsu, 167pp. (in Japanese)

Murakami, S. et al. (2010) "Architecture and Intellectual Productivity", Tetsuadobook, 175pp. (in Japanese)

Murakami,S. et al.(2009), "An Encouragement of Creation of Housing that Promotes Health and Well-Being", Taisei-Shuppan, 184pp. (in Japanse)

Murakami, S. et al. (2008) "Environmental Assessment of Vernacular Architecture", Keio University Press, 204pp. (in Japanese)

Murakami, S. et al. (2008) "System Design: Paradigm Shift from Intelligence to Life": Coronasha, 176pp. (in Japanese)

Murakami, S. et al. (2007) "Study of Classroom Environment and Learning Performance", Kenchiku Shiryo Kenkyusya, 204pp. (in Japanese)

Murakami, S. et al. (2007) "Introduction of CASBEE Residence (single house)", Kenchikugijutsu, 238pp. (in Japanese)

Murakami,S. et al.(2006) "Energy Consumption Efficiency, Conservation, and Green Gas Mitigation in Japan's Building Sector" Lawrence Berkley National Laboratory

Murakami, S. et al. (2006) "Sustainable Building as System Life", Kyoritsu Shuppan, 234pp. (in Japanese)

Murakami, S. et al. (2005) "CASBEE in Practice", Nikkei-BP, 272pp. (in Japanese)

Murakami, S. et al. (2004) "CASBEE Guide", Nikkei-BP, 198pp. (in Japanese)

Murakami, S. et al. (2004) "Environmental Design in the Regional Contexts for Generations", Shokokusha, 362pp. (in Japanese)

Murakami, S. et al. (2004) "Encyclopedia concerning Flow; Ed. by T. Kanbe", Maruzen., 812pp. (in Japanese)

Murakami, S. et al. (2004) "Environmental Management for the Sustainable Building", Shokokusha, 348pp. (in Japanese)

Murakami, S. and Tanabe, S. (2003) "Useful Description of Small Chamber Method for Measures against Sick House", Japanese Standards Association, 180pp. (in Japanese)

Murakami, S. et al. (2002) "Green Planning for Architecture and City", Shokokusha, 177pp. (in Japanese)

Murakami, S. et al. (2002) "Towards the Architecture for a Global Environment", Shokokusha, 305pp. (in Japanese)

Murakami, S. et al. (2002) "Bible of Measures against Sick House", Shokokusha, 203pp. (in Japanese)

Murakami, S., Izumi, H., Yashiro, T., Ando, S. and Hasegawa, T. (2002) "Sustainable Building and Policy Design", Keio University Press., 183 pp. (in Japanese)

Murakami, S. (2001) "Encyclopedia concerning Sick House", Gihodoshuppan., 208 pp. (in Japanese)

Murakami, S. (2000) "Computational Environment Design for Indoor and Outdoor Climates", University of Tokyo Press., 443 pp. (in Japanese)

Murakami, S. et al. (1995) "Building Environment and Visualizing Information", Rikoh Tosho., 149pp. (in Japanese)

Murakami, S., Yoshino, H. et al. (1994) "Environmental Design of Atrium.", Shokokusha., 149 pp. (in Japanese)

Murakami, S., Deguchi, K. et al. (1993) "Analysis and Design for Wind Environment in Urban Area.", Architectural Institute of Japan, 208pp. (in Japanese)

Murakami, S. et al. (1989) "Air Amenity Book", NPO Regional Exchange Center., 181pp (in Japanese)

Technical Papers: English Papers (Japanese papers are not included)

Takigami, M., Ikaga, T., **Murakmi, S**. and Kawakubo, S. (2013) Application of the CASBEE-City Assessment Tool to Disaster-Affected Cities., International Conference on Sustainable Building Asia (SB13 Seoul), Seoul, Korea, 08-10 July 2013

Kawakubo, S., Ikaga, T. and **Murakami, S.** (2012) Assessment of the relationship between urban environmental characteristics and resident health., Healthy Buildings 2012, Brisbane, Queensland, Australia, 08-12 July 2012

Eguchi, R., Ikaga, T., **Murakami, S.** and Kawakubo, S. (2011) Evaluation of Investment in House Improvement Considering Non-Energy Benefits Delivered by Health Promotion., International Conference on Sustainable Building (SB11 Helsinki), Helsinki, Finland, 18-21 October 2011

Kawakubo, S., **Murakami, S.** and Ikaga, T. (2011) Comprehensive Assessment of Whole Japanese Cities from the Perspective of Environmental Efficiency., International Conference on Sustainable Building (SB11 Helsinki), Helsinki, Finland, 18-21 October 2011

Kawakubo, S., Ikaga, T. and **Murakami, S.** (2011) Nationwide Assessment of City Performance Based on Environmental Efficiency, Sustainable Building Technology and Urban Development, Vol.2, No.4, pp.293-301

Ooka, R., Sato, T., Harayama, K., **Murakami, S.** and Kawamoto, Y. (2011) Thermal Energy Balance Analysis of the Tokyo Metropolitan Area Using a Mesoscale Meteorological Model Incorporating an Urban Canopy Model., Boundary-Layer Meteorol (2011) 138, pp.77-97

Murakami, S., Kawakubo, S., Asami, Y., Ikaga, T., Yamaguchi, N. and Kaburagi, S. (2011) Development of comprehensive city assessment tool: CASBEE-City, BUILDING RESEARCH & INFORMATION (2011) Vol. 39 NO.3, pp.195-210

Eguchi, R., Ikaga, T., **Murakami, S.** and Okumura, K. (2010) Evaluating Return on Investment in Thermal Insulation for Houses Considering Non-Energy Benefits of Health and Well-Being., The 9th International Conference on Eco Balance, Tokyo, Japan, 9-12 November 2010

Okumura, K., Ikaga, T., **Murakami, S**. and Kawakubo, S. (2010) Prediction Model for CO₂ Emissions in Non-Residential Sector Considering Changes in Socio-Economic Situation., The 9th International Conference on Eco Balance, Tokyo, Japan, 9-12 November 2010

Kawakubo, S., **Murakami, S.**, Asami, Y., Ikaga, T., Yamaguchi, N.and Kaburagi, S. (2010) Assessment Framework of CASBEE-City: An Assessment Tool of the Built Environment of Cities., International Conference on Sustainable Building (SB10 Espoo), Espoo, Finland, 22-24 September 2010

Okumura, K., Ikaga, T., **Murakami, S.** and Kawakubo, S. (2010) Assessment Model for Global Warming Countermeasures in Commercial Building Sector., International Conference on Sustainable Building (SB10 Espoo), Espoo, Finland, 22-24 September 2010

Kuzuki, R., Satoh, M., Akimoto, T., **Murakami, S.**, Ishino, H., Sasajima., K., Nohara, F., Ninomiya, H. and Tabata, Y. (2010) Integrated Energy Simulation for Building and MEP Systems Including Thermal Cascading in Consideration of the Characteristics of Thermal Energy Media, CLIMA 2010 REHVA International Congress, Antalya, Turkey, 9-12 May 2010

Murakami, S. and Ikaga, T. (2010) The Latest CASBEE Tool for Property Appraisal., International Conference on Sustainable Building (SB10 Seoul), Seoul, Korea, Symposium Session, pp. 131-136

Kawakubo, S., Ikaga, T. and **Murakami, S.** (2010) Estimation of CO₂ Reduction Potential in Small Cities in the Context of the Changing Social Situation in Japan., International Conference on Sustainable Building (SB10 Seoul), Seoul, Korea, 24-26 February 2010

Kato. A., Ikaga, T., Murakami, S., Tsutsui, H. and Ueda, H. (2009) Intelligent Optimal Control Thermal Comfort using Response Surface Method., Healthy Buildings 2009, Syracuse, NY, USA, 13-17 September 2009

Hantani, E., Ikaga, T., **Murakami, S.** and Kameda, K. (2009) Effect of Indoor Environmental Quality on Performance and Satisfaction in Call-Center., Healthy Buildings 2009, Syracuse, NY, USA, 13-17 September 2009

Tawada, T., Ikaga, T., **Murakami, S.**, Kameda, K. and Ueda, H. (2009) A Field Study of Relationship between Thermal Environment, Productivity and Energy Consumption in an Office., Healthy Buildings 2009, Syracuse, NY, USA, 13-17 September 2009

Akutsu, S., Ikaga, T. and **Murakami, S.** (2009) The Effect of Eco-Renovation Environmental Education on the Indoor Thermal Environment and on the Environmental Load: A School Case Study., Healthy Buildings 2009, Syracuse, NY, USA, 13-17 September 2009

Shindo, K., Ikaga, T., **Murakami, S.** and Deguchi, K. (2009) Environmental Performance Evaluation of Vernacular Architectures through CASBEE., Healthy Buildings 2009, Syracuse, NY, USA, 13-17 September 2009

Kimoto, K., Ikaga, T. and Murakami, S. (2008) Study on comprehensive Assessment Systems for building Environmental

- Efficiency(CASBEE) Development of Life Cycle CO₂ Database for CASBEE-New Construction-., The 8th International Conference on Eco Balance, Tokyo, Japan, 10-12 December 2008
- Taiki, S., **Murakami**, S., Ooka, R. and Yoshida, S. (2008) Analysis of regional characteristic of the atmosphere heat balance in the Tokyo metropolitan area in summer., Journal of Wing Enginnering and Industrial Aerodynamics 96 (2008), pp.1640-1654
- Kuzuki, R., **Murakami, S.**, Sadohara, S., Ichikawa, T., Aozasa, K.and Hasegawa, I. (2008) IMPROVING SUSTAINABILITY OF BUILDING BLOCKS BY EXTENDED USE OF DECENTRALIZED COMBINED HEAT AND POWER SYSTEMS., International Conference on Sustainable Building(SB08 Melbourne), Melbourne, Australia, 21-25 September 2008
- Shintani, K., Ikaga, T., **Murakami, S.** and Tsuda, K. (2008) ESTIMATION OF ENVIRONMENTAL EFFICIENCY RELATED TO CO₂ REDUCTION FOR OFFICE BUILDINGS UP TO 2050., International Conference on Sustainable Building(SB08 Melbourne), Melbourne, Australia, 21-25 September 2008
- Sato, T., Ooka, R and **Murakami**, **S.** (2008) The effect of urban structure on sea breeze penetration over the Kanto Plain –Analysis based on mean kinetic energy balance model-.,The 4th International Conference on Advances in Wind and Structures(AWAS '08), Jeju, Korea, 29-31 May 2008
- Kameda, K., **Murakami, S.**, Kaneko, T., Ito, K. and Hiwatashi, K. (2007) STUDY ON PRODUCTIVITY IN THE CLASSROOM: (Part4) Effects of Indoor Environmental Quality on Motivation and Performance for Learning., Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2007) Sendai, Japan, 28-30 October 2007
- Ito, K., **Murakami**, **S.** and Kameda, K. (2007) Indoor Environment and Academic Performance in Classrooms., Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2007) Sendai, Japan, 28-30 October 2007
- Mizuta, K., Ikaga, T. and **Murakami, S.** (2007) ESTIMATION OF EFFECT OF INJECTING OLYURETHANE FOAM INTO WALLS AND RENOVATING WINDOWS IN HOUSES IN JAPAN UP TO 2020: STUDY ON REDUCTION OF GREENHOUSE GASES FROM RENOVATING THERMAL INSULATION IN HOUSES., Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2007) Sendai, Japan, 28-30 October 2007
- Kuzuki, R., **Murakami, S.**, Sadohara, S., Ichikawa, T., Aozasa, K. and Hasegawa, I. (2007) Improving Sustainabiliy of Building Blocks by Extended Use of Decentralized Combined Heat and Power Systems., International Conference on Sustainable Building Asia (SB07 Seoul), Seoul, Korea, 27-29 June 2007
- Watanabe. R., **Murakami**, S., Kato, S., Yoshikawa, M., Yasueda, H. and Hirose, M. (2007) Effects of Heating Systems on Diffusion of Mite Allergens in Occupational Spaces Based on Experiments and CFD Analysis., Roomvent2007, Helsinki, Finland, 13-15 June 2007
- Kameda, K., **Murakami**, S., Ito, K. and Kaneko, T. (2007) Study on Productivity in the Classroom (Part 3): Nationwide Questionnaire Survey on the Effects of IEQ on Learning Performance: Nationwide Questionnaire Survey on the Effects of IEQ on Learning Performance., Clima2007, Helsinki, Finland, 10-14 June 2007
- Zhu, Q., Kato, S., **Murakami, S.** and Ito, K. (2007) 3D-CFD analysis of diffusion and emission of VOCs in a FLEC cavity., INDOOR AIR 17 (3), pp.178-188.
- Lun, Y. F., Mochida, A., Yoshino, H. and **Murakami, S.** (2007), Applicability of linear type revised k–e models to flow over topographic features., Journal of Wind Engineering and Industrial Aerodynamics 95 (2007), pp.371-384.
- Kim, T., Song, D., Kato, S., **Murakami, S.** (2007) Two-step optimal design method using genetic algorithms and CFD-coupled simulation for indoor thermal environments., APPLIED THERMAL ENGINEERING 27 (1) JAN 2007 pp.3-11
- Yoshino, H., Xie, J.C., Mitamura, T., Chiba, T., Sugawara, H., Hasegawa, K., Genjo, K. and **Murakami, S.** (2007) A Two Measurement of Energy Consumption and Indoor Temperature of 13 Houses in a Cold Climatic Region of Japan., Journal of Asian Architecture and Building Engineering , JAABE, vol5, no.2, pp.361-368.
- Takai, H., **Murakami**, S. and Ikaga, T. (2006) Market Transformation: Role of Building Environmental Assessment Methods in Japan., EcoBalance 2006, Tsukuba Japan, 14-16 November 2006
- Narita, N., **Murakami, S.**, Ikaga, T., Sakabe, K. and Itsubo, N. (2006) Damage factor development for indoor air quality., EcoBalance 2006, Tsukuba Japan, 14-16 November 2006
- Ono, T., Murakami, S., Ooka, R., Takahashi, T., Omori, T. and Saotome, T. (2006) Numerical and Experimental Study on Convective

Heat Transfer around a Human Body in Outdoor., the 4th International Symposium on Computational Wind Engineering, Yokohama Japan, 16-19 July 2006

Hirose, M., **Murakami, S.**, Kato, S., Ooka, R. and Omori, T. (2006) Study on Indoor Fungal Pollution Based on a Coupled CFD Analysis and Hygrothermal Transfer in Building Materials., Healthy Buildings 2006, Lisboa Purtugal, 4-8 June 2006

Narita, N., **Murakami, S.**, Ikaga, T., Sakabe, K. and Itsubo, N. (2006) Development of Life Cycle Impact Assessment Methods for Indoor Air Pollution., Healthy Buildings 2006, Lisboa Purtugal, 4-8 June 2006

Ono, T., **Murakami, S.**, Ooka, R., Takahashi, T., Omori, T. and Saotome, T. (2006) Study on Convective Heat Transfer of a Human Body to Evaluate the Outdoor Thermal Environment, the 6th International Conference on Urban Climate., Göteborg, Sweden, 12-16 June 2006

Murakami, S. (2006) Environmental design of outdoor climate based on CFD., Fluid Dynamics Research Vol.38, pp.108-126.

Hirano, T., Kato, S., **Murakami**, **S.**, Ikaga, T. and Shiraishi, Y. (2006) A study on a porous residential building model in hot and humid regions, part 1 - the natural ventilation performance and the cooling load reduction effect of the building model., Building and Environment Volume 41, Issue 1, pp.21-32.

Hirano, T., Kato, S., **Murakami, S.**, Ikaga, T., Shiraishi, Y. and Uehara, H., (2006) A study on a porous residential building model in hot and humid regions, part 2 - reducing the cooling load by component-scale voids and the CO2 emission reduction effect of the building model., Building and Environment Volume 41, Issue 1, pp.33-44.

Katsumata, H., **Murakami**, S., Kato, S., Hoshino, K., and Ataka, Y. (2005) Measurement of Semi Volatile Organic Compounds Emitted from Various Types of Indoor Materials., Indoor Air 2005, The Tenth International Conference on Indoor Air Quality and Climate, Beijing, China, 4-9 September 2005

Saotome, T., **Murakami, S.**, Kato, S. and Ishikawa, S. (2005) Experimental and Numerical Study on Dry Eye Syndrome and Airflow around the Eyes., Indoor Air 2005, The Tenth International Conference on Indoor Air Quality and Climate, Beijing, China, 4-9 September 2005

Zhu, S., Kato, S., **Murakami, S.** and Hayashi, T. (2005) Study on inhalation region by means of CFD analysis and experiment., Building and Environment, Volume 40, Issue 10, pp.1329-1336.

Kim, T., Kato, S., **Murakami**, S. and Rho, J. (2005) Study on indoor thermal environment of office space controlled by cooling panel system using field measurement and the numerical simulation., Building and Environment, Volume 40, Issue 3, pp.301-310.

Takahashi, T., Kato, S., **Murakami, S.,** Ooka, R., Yassin, M. F. and Kono, R. (2005) Wind tunnel tests of effects of atmospheric stability on turbulent flow over a three-dimensional hill., Journal of Wind Engineering and Industrial Aerodynamics vol.93, pp.155-169.

Mizuishi, T., **Murakami, S.** and Ikaga, T. (2004) Effect of Thermal Insulation of Houses on Greenhouse Gas Emissions Focusing on Leakage of Fluorocarbons., the 6th Eco Balance, Tsukuba, 25-27 October 2004

Yokota, T., **Murakami, S.,** Kato, S., Ataka, Y. and Zhu, Q. (2004) Study on Effect of Adsorptive Building Material for Reducing Room Air HCHO Concentration., Roomvent2004, 9th International Conference on Air Distribution in Rooms, Coimbra Portugal, 5-8 September 2004

Omori, T., Yang, J. H., Kato, S. and **Murakami**, S. (2004) Coupled Simulation of Convection and Radiation on Thermal Environment around an Accurately Shaped Human Body., Roomvent2004, 9th International Conference on Air Distribution in Rooms, Coimbra Portugal, 5-8 September 2004

Murakami, S. (2004) CASBEE; New Assessment Tools based on Environmental Efficiency and designed to fit all Lifecycle Stages., The OECD/IEA Workshop on Sustainable Buildings: Towards Sustainable Use of Building Stock, Tokyo, 15-16 January 2004

MURAKAMI, S. (2004) Indoor/outdoor climate design by CFD based on the Software Platform., International Journal of Heat and Fluid Flow vol.25 Issue5, pp.849-863.

MURAKAMI, S. (2004) Analysis and design of micro-climate around the human body with respiration by CFD., Indoor Air 2004 vol.14 Issue.supplement7, pp.144-156.

MURAKAMI, S., KATO, S., OOKA, R. and SHIRAISHI, Y. (2003) Design of a Porous-type Residential Building Model with Low

Environmental Load in Hot and Humid Asia., Energy and Buildings.

Lun, Y. F., Mochida, A., **Murakami, S.,** Yoshino, H. and Shirasawa, T. (2003) Numerical simulation of flow over topographic features by revised k-ε models., Journal of Wind Engineering and Industrial Aerodynamics 91, pp.231-245.

Murakami, S., Kato, S., Ito, K., and Zhu, Q. (2003) Modeling and CFD prediction for diffusion and adsorption within room with various adsorption isothems., Indoor Air, Volume 13, Supplement 6, pp.20-27.

Kato, S., Ito, K., **Murakami, S.** and Shu, S. (2003) Brief History of CFD in Applications to indoor/outdoor climate design in Japan., Numerical Simulation of Turbulent Flow Research Commemorative Symposium, Tokyo, 23 June 2003

Murakami, S., Otsuka, K., Mochida, A., Kataoka, H. and Kato, S. (2003) CFD prediction of flow over complex terrain using Local Area Wind Energy Prediction System (LAWEPS)., 11th International Conference on Wind Engineering, Lubbock Texas, USA, 2-5 June 2003, pp.2821-2828

Tominaga, Y., Mochida, A. and **Murakami, S.** (2003) Large Eddy Simulation of Flowfield around a High-rise Building., 11th International Conference on Wind Engineering, Lubbock Texas, USA, 2-5 June 2003, pp.2543-2550

Takahashi, T., Kato, S., **Murakami, S.**, Ooka, R., Yassin, M. F. and Kono, R. (2003) Wind Tunnel Tests of Effects of Atmospheric Stability on Turbulence Flow Over a Three-dimensional Hill., 11th International Conference on Wind Engineering, Lubbock Texas, USA, 2-5 June 2003, pp.2829-2836

Mochida, A., Shirasawa, T., Yoshino, H., **Murakami**, S. and Tominaga, Y. (2003) CFD Analysis of Flow around a Cube using Revised k-ε Model Based on Mixed Time Scale Concept., 11th International Conference on Wind Engineering, Lubbock Texas, USA, 2-5 June 2003, No.2, pp.1149-1156

Murakami, S., Mochida, A., Ooka, R., Yoshida, S., Yoshino, H., Sasaki, K., and Harayama, K. (2003) Evaluation of the Impacts of Urban Tree Planting in Tokyo Based on Urban Heat Balance Model., 11th International Conference on Wind Engineering, Lubbock, Texas, USA, 2-5 June 2003, No.2, pp.2641-2648

Lun, Y. F., Mochida, A., Yoshino, H., **Murakami**, S. and Kimura, A. (2003) Applicability of Linear Type Revised k-ε Models to Flow over Topographic Feature., 11th International Conference on Wind Engineering, Lubbock Texas, USA, 2-5 June 2003, pp.2663-2672

Zhu, S., Kato, S., **Murakami, S.**, Sudo, M. and Song, D. (2003) STUDY ON THE PERSONAL AIR-CONDITIONING SYSTEM CONSIDERING HUMAN THERMAL ADAPTATION., TSINGHUA-HVAC-2003, (Department of Building Science School of Architecture, Tsinghua University)

Murakami, S., Sakamoto, Y., Yashiro, T., Iwamura, K., Bogaki, K., Oka, T., Sato, M., Ikaga, T. and Endo, J. (2002) Comprehensive Assessment System of Building Environmental Efficiency in Japan(CASBEE-J)., Sustainable Building, 23-25 September 2002, Oslo, Norway

Yang, J. H., Kato, S., Hayashi, T. and **Murakami, S.** (2002) Measurement of Local Convective Heat Transfer Coefficients of the Human Body in Outdoor and Indoor., ROOMVENT2002, pp.281-284, Copenhagen, 8-11 September 2002

Song, D., Kato, S. and **Murakami, S.** (2002) Study on hybrid cooling system using radiational panel cooling with wind-induced cross ventilation., ROOMVENT2002, Copenhagen, 8-11 September 2002

Murakami, S., Kato, S., Zhu, Q. and Ito, K. (2002) 3D-CFD ANALYSIS OF DIFFUSION AND EMISSION OF VOCs IN A FLEC CAVITY., Indoor Air 2002, 2C4o3 p548 6pp.

Kato, S., Zhu, Q., Ito, K., Ataka, Y. and **Murakami, S.** (2002) MEASURING METHOD OF REDUCING EFFECT OF POLLUTANT CONCENTRATION WITH ABSORPTIVE BUILDING MATERIAL., Indoor Air 2002, 6pp.

Ito, K., Kato, S., Zhu, Q. and **Murakami, S.** (2002) CFD ANALYSIS OF CHEMICALLY REACTIVE POLLUTANTS IN 2D TEST ROOM., Indoor Air 2002, 6pp.

Murakami, S. (2002) Development of Local Area Wind Energy Prediction System for Selecting Suitable Site for Windmill., Engineering Symposium to Honour Alan G.Davenport, Canada, D1-1 - D1-21

Lun, Y. F., Mochida, A., Yoshino, H. and **Murakami, S.** (2002) Numerical Prediction of Flow over Hill by Linear and Nonlinear k-E

Models., PVP-VOL446-2, Emerging Techologies in Fluids, Structures, and Fluid/Structure Interactions-2002 Volume 2 ASME 2002 (Proceeding of Conference), pp21-26.

Song, D., Kato, S. and **Murakami, S.** (2002) Study on Cross Ventilation with Radiational Panel Cooling for Hot and Humid Regions., ASHRAE Transaction 2002

Hayashi, T., Ishizu, Y., Kato, S. and **Murakami, S.** (2002) CFD analysis on characteristics of contaminated indoor air ventilation and its application in the evaluation of the effects of contaminant inhalation by a human occupant., Building and Environment 37, pp.219-230.

Shiraishi, Y., **Murakami, S.,** Kato, S., Ikaga, T., Kim, T., Song, D. and Hirano, T. (2001) Evaluation of Wind Breeze Properties of City-Block-Scale Voids by Using Local Ventilation Efficiency Index., The Fifth Asia-Pacific Conference on Wind Engineering, APCW V, JWE No.89, p.293-296.

Lun, Y. F., Mochida, A., **Murakami, S.,** Yoshino, H. and Shirasawa, T. (2001) Numerical Simulation of Flow over Topographic Features by Revised k-ε models., The Fifth Asia-Pacific Conference on Wind Engineering, APCW V, JWE No.89

Kato, S., Song, D., Kim, T. and **Murakami, S.** (2001) Study on Cross Ventilation with Radiational Panel Cooling for Hot and Humid Regions., IAQVEC, 8pp.

Takahashi, T., Ohtsu, T., Yassin, M.F., Kato, S. and **Murakami, S.** (2001) Turbulence Characteristics of Wind Over a Hill with a Rough Surface., JEW, No. 89 APCWE V, pp. 569-572.

Shiraishi, Y., **Murakami, S.,** Kato, S., Ikaga, T., Kim, T., Song, T.and Hirano, T. (2001) Evaluation of Wind Breeze Properties of City-Block-Scale Voids by Using Local Ventilation Efficiency Index., JEW, No. 89 APCWE V, pp. 293-296.

Murakami, S., Mochida, A., Kim, S., Ooka, R., Yoshida, S., Kondo, H., Genchi, Y. and Shimada, A. (2000) Software Platform for the total analysis of wind climate and urban heat island -integration of CWE simulations from human scale to urban scale-., CWE 2000, 4pp.

Yoshida, S., **Murakami, S.**, Ooka, R., Mochida, A. and Tominaga, Y. (2000) CFD Prediction of Thermal Comfort in Microscale Wind Climate., CWE 2000, pp.27-30.

Mochida, A., Tominaga, Y., **Murakami, S.,** Ooka, T., Ishihara, T. and Yoshie, R. (2000) Comparison of Various k-ε Models and DSM Applied to Flow around a High-rise Building report on AIJ cooperative project for CFD prediction of wind environment-., CWE 2000, 4pp.

Murakami, S., Kato, S., Shiraishi, Y., Ikaga, T. and Ooka, R. (2000) Design of High-Density Neighborhood Units with Low Environmental Load at Hot & Humid Regions ISRE 2000, International Workshop "Energy and Environment of Residential Buildings in China"., pp.1-25.

Kato, S., **Murakami, S.,** Chang, H., Chikamoto, T. and Kim, T. (2000) ROOM AIR DISTRIBUTION AND COOLING LOAD OF HYBRID AIR-CONDITIONING SYSTEM UTILIZING NATURAL VENTILATION IN AN OFFICE., Roomvent 2000, 6pp.

Kim, T., Kato, S. and **Murakami, S.** (2000) COUPLED SIMULATION OF CONVECTON, RADIATION, AND HVAC CONTROL FOR ATTAINING A GIVEN PMV VALUE., Roomvent 2000, pp.1-6.

Murakami, S., Kato, S. and Zeng, J. (2000) Combined Simulation of Airflow, Radiation and Moisture Transport for Heat Release from A Human Body., Building and Environment., Vol. 35, No. 6, pp. 498-500.

Murakami, S. (1999) Sustainability and Energy Efficiency in the Operation Phase., OECD/IEA Joint Workshop Achievieving Sustainability and Energy Efficiency in Buildings., November 2-3, 1999., 11 pp.

Murakami, S., Zeng, J. and Hayashi, T. (1999) CFD analysis of wind environment around a human body., Journal of Wind Engineering and Industrial Aerodynamics Vol. 83., pp. 393-408.

Kato, S., **Murakami, S.**, Chang, H. et al. (1999) Hybrid Air-Conditioning Based on Natural and Mechanical Ventilation in Office Building., Indoor Air 99, The 8th International Conference on Indoor Air Quality & Climate, Edinburgh, Scotland, August 8th-13th, 1999, vol. 2, pp. 404-409

Murakami, S., Kato, S., Ito, K. and Yamamoto, A. (1999) Coupled Analysis of Emission, Sorption and Diffusion of Chemical Pollutants in Ventilated Room by CFD., Indoor Air 99, The 8th International Conference on Indoor Air Quality & Climate, Edinburgh, Scotland, August 8th- 13th, 1999, vol. 4, pp. 725-730

Hayashi, T., **Murakami**, S., Kato, S., Zeng, J. (1999) CFD Analysis of Passive Smoking., Indoor Air 99, The 8th International Conference on Indoor Air Quality & Climate, Edinburgh, Scotland, August 8th- 13th, 1999, vol. 4, pp. 755-760

Murakami, S., Ooka, R., Mochida, A., Yoshida, S. and Kim, S. (1999) CFD analysis of wind climate from human scale to urban scale., Jounal of wind engineering and industrial aerodynamics. 81, pp. 57-81.

Shiraishi, Y., Kato, S., **Murakami**, S., Kim, S. and Ooka, R. (1999) Numerical analysis of thermal plume coused by large-scale fire in urban area., Journal of wind engineering and industrial aerodynamics. 81, pp.261-271.

Mochida, A., **Murakami, S.**, Ooka, R. and Kim, S. (1999) CFD Study on Urban Climate in Tokyo -Effects of urbanization on climatic change-, Proceedings of 10th International Conference on Wind Engineering, Copenhagen, Denmark, Volume 1, June, 1999., pp. 1-8.

Murakami, S. and Mochida, A. (1999) Past, present, and future of CWE: The view from 1999., Proceedings of 10th International Conference on Wind Engineering, Copenhagen, Denmark, Volume 1, June, 1999., pp. 91-104.

Mochida, A., **Murakami**, S., Kim, S. and Ooka, R. (1999) CFD study on urban climate in Tokyo-Effects of urbanization on climatic change. Proceedings of the 10th International Conference on Wind Engineering, Copenhagen, Denmark, June, 1999, pp. 1307-1314.

Ooka, R., **Murakami**, S., Iizuka, S. and Uehara, K. (1999) Wind-tunnel test of gaseous diffusion in street canyon with thermal stratification. Proceedings of the 10th International Conference on Wind Engineering, Copenhagen, Denmark, June, 1999, pp. 781-786.

Kato, S., Chikamoto, T., **Murakami, S.**, Kitamura, N., Ho Wen Yue and Kim T. (1999) Improvements of Indoor Air Quality by using Hybrid Sustainable HVAC Systems., International Forum of Indoor Air Quality Problems in Developed and Developing Countries for Sustainable Indoor Environment, Tokyo, Japan, Jan. 19, 1999., pp. 93-100.

Murakami, S., Kato, S. and Ito, K. (1998) Coupled Analysis of TVOC Emission and Diffusion in Ventilated Room by CFD., EPIC '98, Lyon, France, November 19-21, 1998., pp. 19-26.

Murakami, S., Kato, S. and Zeng, J. (1998) Numerical Simulation of Contaminant Distribution Around a Modeled Human Body: CFD Study on Computational Thermal Manikin – Part II., ASHRAE TRANSACTIONS 1998, V. 104, Pt. 2., 8 pp.

Murakami, S., Kato, S. and Zeng, J. (1998) Combined simulation of Airflow, Radiation and Moisture Transport for Heat Release From Human Body., ROOMVENT '98, Stockholm, Sweden, June 14-17, 1998., pp. 141-150.

Kato, S., **Murakami, S.** and Chol Nam Kong (1998) Zonal Climate Design of Grand Opera Theater based on Contribution Ratio of Cooled Air from Supply Openings., ROOMVENT '98, Stockholm, Sweden, June 14-17, 1998.

Kato, S., **Murakami, S.** and Yoshie, R. (1998) Experimental and Numerical Study on Natural Convection in a Model Fire Room., UJNR, Japan, 1998., 8pp.

Chikamoto, T., Kato, S, **Murakami, S.**, Kitamura, N., Ho Wen Yue and Kim, T. (1998) Study on Hybrid Air-Conditioning System using Natural Ventilation in Office Space., ROOMVENT '98, Stockholm, Sweden, June 14-17, 1998.

Murakami, S. (1997) OVERVIEW OF TURBULENCE MODELS APPLIED IN CWE-1997., 2nd European & African Conference on Wind Engineering, Genova, Italy, June 22-26, 1997

Kim, S., Murakami S., Mochida, A. and Ooka, R. (1997) CFD Analysis of Urban Heat Island in Tokyo: effects of land-use conditions on urban climate., ICCCBE-7th, 19-21 August 1997, 7-th International Conference on Computing in Civil and Building Engineering, Seoul, Korea., August 19-21, 1997., 6 pp.

Ooka, R., **Murakami, S.**, Mochida, A., Kim, S., Naito, K., Moriyama, M., Takebayashi, H. and Shibaike, H. (1997) CFD Analysis of Urban Climate in Kobe City Application of nested grid technique to urban climate analysis., "Klimaanalyse fuer die Standtplanung" Second Japanese-German Meeting, Kobe, September 25-27, 1997., 8 pp.

Murakami, S., Iizuka, S., Mochida, A. and Tominaga, Y. (1997) LES Analysis of Turbulent Flow Past a Square Cylinder Using Various SGS Models., J.-P. Chollet et al. (eds.), Direct and Large-Eddy Simulation II. Kluwer Academic Publishers., pp. 385-395.

Mochida, A., Tominaga, Y. and **Murakami, S.** (1997) LES Prediction of Gas Diffusion Near Building using Dynamic Mixed SGS Model Based on a Composite Grid System., J.-P. Chollet et al. (eds.), Direct and Large-Eddy Simulation II., Kluwer Academic Publishers., pp. 278-290.

Murakami, S., Kato, S. and Zeng, J. (1997) Flow and Temperature Fields Around Human Body with Various Room Air Distribution - CRD Study on Computational Thermal Manikin: Part 1., ASHRAE Transactions 1997., V. 103, Pt. 1., 12 pp.

Omori, T., **Murakami, S.** and Kato, S. (1997) Numerical Simulation of Solar Heat Absorption within Indoor Space by Means of Composite Grid Method., ASHRAE TRANSACTIONS 1997., V. 103, Pt. 1., 8 pp.

Murakami, S. (1997) Current status and future trends in computational wind engineering., Journal of Wind Engineering and Industrial Aerodynamics 67 & 68, pp. 3-34.

Murakami, S., Mochida, A. and Sakamoto, S. (1997) CFD analysis of wind-structure interaction for oscillating square cylinders., Journal of Wind Engineering and Industrial Aerodynamics 72, pp. 33-46.

Kondo, K., **Murakami, S.** and Mochida, A. (1997) Generation of velocity fluctuations for inflow boundary condition of LES., Journal of Wind Engineering and Industrial Aerodynamics 67&68, pp. 51-64.

Tsuchiya, M., **Murakami**, S., Mochida, A. and Kondo, K. and Ishida, Y. (1997) Development of a new k-e model for flow and pressure fields around bluff body., Journal of Wind Engineering and Industrial Aerodynamics 67&68, pp. 169-182.

Mochida, A., **Murakami, S.**, Ojima, T., Kim, S., Ooka, R. and Sugiyama, H. (1997) CFD analysis of mesoscale climate in the Greater Tokyo area., Journal of Wind Engineering and Industrial Aerodynamics 67&68, pp. 459-477.

Kato, S., **Murakami, S.**, Takahashi, T. and Gyobu, T. (1997) Chained analysis of wind tunnel test and CFD on cross ventilation of large-scale market building., Journal of Wind Engineering and Industrial Aerodynamics 67&68, pp. 573-587.

Tominaga, Y., **Murakami**, **S.** and Mochida, A. (1997) CFD prediction of gaseous diffusion around a cubic model using a dynamic mixed SGS model based on composite grid technique., Journal of Wind Engineering and Industrial Aerodynamics 67&68, pp. 827-841.

Murakami, S., Mochida, A., Ooka, R., Kato, S. and Iizuka, S. (1996) Numerical Prediction of Flow Around a Building with Various Turbulence Models Comparison of k-ε EVM, ASM, DSM, and LES with Wind Tunnel Tests., ASHRAE TRANSACTIONS., Vol.102 Pt 1.

Murakami, S., Kato, S., Chikamoto, T., Laurence, D. and Blay, D. (1996) New low-Reynolds-number k-ε model including damping effect due to buoyancy in a stratified flow field., Int. J. Heat Mass Transfer., Vol. 39, No. 16., pp. 3483-3496.

Murakami, S., Kato, S. and Zeng, J. (1996) CFD ANALYSIS OF THERMAL ENVIRONMENT AROUND HUMAN BODY., THE 7TH INTERNATIONAL CONFERENCE ON INDOOR AIR QUALITY AND CLIMATE., 6 pp.

Kato, S., **Murakami, S.** and Zeng, J. (1996) Numerical Analysis of Contaminant Distribution around a Human Body., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 129-136.

Yoshie, R., **Murakami, S.** and Kato, S. (1996) Experimental and Numerical Study on Natural Convection in a Model Fire Room., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 145-152.

Ozeki, Y., Kato, S. and **Murakami, S.** (1996) Numerical Analysis on Flow and Temperature Fields in Experimental Real Scale Atrium., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 179-186.

Sugiyama, T., **Murakami**, S., Kato, S., Takahashi, T., Ooka, R., Deguchi, K. and Ikezawa, H. (1996) Field Measurement on Indoor Climate of Passenger Terminal Building of Kansai International Airport under Two Different Operation Modes of its Air Conditioning System., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 263-270.

Niwa, K., **Murakami**, S., Kato, S., Kondo, Y. and Kitamura, N. (1996) Numerical Analysis of Flow and Temperature Fields with Local Air-conditioning by Supply Jets from the Seats in Hall., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 307-314.

Hiramatsu, T., Harada, T., Kato, S., **Murakami, S.** and Yoshino, H. (1996) Study of Thermal Environment in Experimental Real-scale Atrium., 5th International Conference on Air Distribution in Rooms ROOMVENT '96, Yokohama, Japan, July 17-19, 1996., pp. 523-530.

Mochida, A., **Murakami, S.**, Ojima, T., Kim S., Ooka, R. and Sugiyama, H. (1996) CFD Analysis of Mesoscale Climate in Greater Tokyo Area., Proceedings of CWE96, Second International Symposium on Computational Wind Engineering, Colorado State University, August 4-8, 1996., 16 pp.

Mochida, A., Tominaga, Y. and **Murakami, S.** (1996) LES PREDICTION OF GAS DIFFUSION NEAR BUILDING USING DYNAMIC MIXED SGS MODEL BASED ON A COMPOSITE GRID SYSTEM., EROFTAC SERIES, Direct and Large-Eddy Simulation II, The Second EROFTAC Workshop on Direct and Large-Eddy Simulation, Grenoble, France, 16-19, September, 1996., pp. 279-290.

Kato, S., **Murakami, S.**, Mochida, A. and Tominaga, Y. (1996) Recent Progress in LES and Its Application to Turbulent Vortex Shedding Flows past 2D Bluff Body., Third Asian-Pacific Conference on Computational Mechanics, September, 1996.

Kato, S., **Murakami, S.** and Chikamoto, T. (1995) New k-ε Model for Stable and Unstable Flowfields Including Damping Effect due to Buoyancy., Proceedings of the International Symposium on Mathematical Modelling of Turbulent Flows, Tokyo, Japan, Dec. 18-20, 1995., pp. 187-192.

Kato, S., **Murakami, S.**, Shoya, S., Hanyu, F. and Zeng, J. (1995) CFD Analysis of Flow and Temperature Fields in Atrium with Ceiling Height of 130 M., ASHRAE TRANSACTIONS., V. 101, Pt. 2., 14 pp.

Murakami, S. and Mochida, A. (1995) On turbulent vortex shedding flow past 2D square cylinder predicted by CFD., Journal of Wind Engineering and Industrial Aerodynamics 54/55., pp. 191-211.

Murakami, S., Kato, S., Deguchi, K., Takahashi, T., Makimura, I. and Kondo, Y. (1995) Natural Ventilation of a Large-Scale Wholesale Market Building., ASHRAE TRANSACTIONS 1995., V. 101, Pt. 1., 11 pp.

Murakami, S., Kato, S. and Yoshie, R. (1995) Measurement of Turbulence Statistics in a Model Fire Room by LDV., ASHRAE TRANSACTIONS 1995., V. 101, Pt. 2., 15 pp.

Murakami, S., Kato, S. and Zeng, J. (1995) Development of a Computational Thermal Manikin CFD Analysis of Thermal Environment Around Human Body., Tsinghua-HVAC- '95., 6 pp.

Murakami, S. and Mochida, A. (1995) Applications of CFD to Bluff Body Aerodynamics., A State of the Art in Wind Engineering., New Age International Publishers Limited, Wiley Eastern Limited., pp. 65-89.

Murakami, S., Mochida, A. and Sakamoto, S. (1995) CFD Analysis of Wind-Structure Interaction for Oscillating Square Cylinder., 9ICWE, 9th International Conference on Wind Engineering., pp. 671-682.

Murakami, S., Kato, S., Kobayashi, H. and Hanyu, F. (1995) Current status of CFD application to air-conditioning engineering., Pan Pacific Symposium on Building and Urban Environmental Conditioning in Asia., 24 pp.

Kato, S., **Murakami, S.** and Miura, N. (1995) Flow and Temperature Distribution Analysis in Large Atrium with Coupled Simulation of Convective and Radiative Heat Transfer Using Parallel Computer., PARALLEL CFD '95, 3 pp.

Kato S., **Murakami**, S., Wei Zhang, Miura, N. and Okamoto, T. (1995) Incompressible Flow Simulation using SIMPLE-D Method on HX Network Parallel Computer., PARALLEL CFD, pp. 177-185.

Murakami, S., Mochida, A. and Tominaga, Y. (1994) Numerical Simulation of Turbulent Diffusion in Cities., Wind Climate in Cities., Kluwer Academic Publishers., pp. 681-701.

Kato, S., **Murakami, S.** and Kondo, Y. (1994) Numerical Simulation of Two-dimensional Room Airflow with and without Buoyancy by Means of ASM., ASHRAE Transactions., V. 100, Pt. 1.

Kobayashi, H., **Murakami**, S. and Kato, S. (1994) New Scales for Assessing Contribution of Heat Sources and Sinks to Air and Temperature Distributions in Room Based on Numerical Simulation., Proceedings of the 12th ISCC in Yokohama, 1994., pp. 333-340.

Kato, S., **Murakami**, S. and Kobayashi, H. (1994) New Scales for Evaluating Ventilation Efficiency as Affected by Supply and Exhaust Openings Based on Spatial Distribution of Contaminant., Proceedings of the 12th ISCC in Yokohama, 1994., pp. 341-348.

Kato, S., **Murakami, S.** and Kondo, Y. (1994) Numerical Simulation of Two-Dimensional Room Airflow with and without Buoyancy by Means of ASM., ASHRAE Transactions: Research., pp. 238-255.

Murakami, S., Kato, S. and Yokoi, M. (1994) Micro / Macroscopic Analysis of Airmass, Heat and Energy Transport within an Enclosure., ROOMVENT '94, Poland, June, 1994., 23 pp.

Kato, S., **Murakami**, S. and Kobayashi, H. (1994) New Scales for Assessing Contribution of Heat Sources and Sinks to Temperature Distributions in Room by Means of Numerical Simulation., ROOMVENT '94, June 15-17, 1994, Kracow, POLAND., 19 pp.

Murakami, S., Kato, S. and Ooka, R. (1994) Comparison of Numerical Predictions of Horizontal Nonisothermal Jet in a Room with Three Turbulence Models - k-ε EVM, ASM and DSM., ASHRAE Transactions., V. 100, Pt. 2., 8 pp.

Kato, S., **Murakami, S.** and Kondo, Y. (1994) Numerical Simulation of Two-Dimensional Room Airflow with and without Buoyancy by Means of ASM., ASHRAE Transactions, pp. 238-255.

Murakami, S., Rodi, W., Mochida, A. and Sakamoto, S. (1993) Large Eddy Simulation of Turbulent Vortex Shedding Flow Past 2D Square Cylinders., Engineering Applications of Large Eddy Simulations. ASME, FED-Vol. 162., pp. 113-120.

Mochida, A., Ishida, Y. and **Murakami, S.** (1993) Numerical Study on Flowfield around Structures with Oblique Wind Angle based on Composite Grid System., The 7th U. S. National Conference on Wind Engineering., pp. 463-472.

Kato, S., **Murakami, S.** and Yoshie, R. (1993) Experimental and Numerical Study on Natural Convection with Strong Density Variation along a Heated Vertical Plate., Ninth Symposium on "Turbulent Shear Flows" Kyoto, Japan.

Murakami, S., Mochida, A. and Ooka, R. (1993) Numerical Simulation of Flowfield over Surface-mounted Cube with Various

Second-moment Closure Models., Ninth Symposium on "Turbulent Shear Flows" Kyoto, Japan.

Murakami, S. (1993) Comparison of Various Turbulence Models Applied to a Bluff Body., Journal of Wind Engineering and Industrial Aerodynamics., 46&47., pp. 21-36.

Kato, S., **Murakami, S.**, Utsumi, Y. and Mizutani, K. (1993) Application of Massive Parallel Computer to Computational Wind Engineering., Journal of Wind Engineering and Industrial Aerodynamics., 46 & 47., pp. 393-400.

Mochida, A., **Murakami**, S., Shoji, M. and Ishida, Y. (1993) Numerical Simulation of Flowfield around Texas Tech Building by Large Eddy Simulation., Journal of Wind Engineering and Industrial Aerodynamics., 46 & 47., pp. 455-460.

Murakami, S. and Mochida, A. (1993) On Turbulent Vortex Shedding Flow Past 2D Square Cylinder Predicted by CFD., Third Asia-Pacific Symposium on Wind Engineering, 1993.12.

Murakami, S., Kato, S., Mochida, A., Akabayashi, S. and Tominaga, Y. (1992) Velocity-Pressure Field of Cross Ventilation with Open Windows Analyzed by Wind Tunnel and Numerical Simulation., Journal of Wind Engineering and Industrial Aerodynamics., pp. 2575-2586.

Murakami, S., Kato S., Nagano, S. and Tanaka, Y. (1992) Diffusion Characteristics of airborne particles with gravitational settling in a convection-dominant indoor flow field., ASHRAE Transactions., V.98, Pt.1., pp. 82-97.

Kato, S., **Murakami, S.** and Nagano, S. (1992) Numerical Study on Diffusion in a Room with a Locally Balanced Supply-Exhaust Airflow Rate System., ASHRAE Transaction., V. 98, Pt. 1., pp. 218-238.

Murakami, S., Kato, S., Tanaka, Y., D.-H. Choi and Kitazawa, T. (1992) The influence of supply and exhaust openings on ventilation efficiency in an air-conditioned room with a raised floor., ASHRAE Transaction., V.98, Pt.1., pp. 738-755

Murakami, S., Kato, S. and Kondo, Y. (1992) Numerical prediction of horizontal non-isothermal 3-D jet in room based on algebraic second-moment closure model., ASHRAE Transaction., V.98, Pt.1., pp. 951-962.

Murakami, S., Shoji, M., Mochida, A., Ishida, Y. and Hayashi, Y. (1992) Numerical simulation of flowfield around Texas Tech building by large eddy simulation., ASCE Tenth Structures Congress., pp. 105-108.

Murakami, S., Mochida, A. and Sakamoto, S. (1992) Unsteady pressure field around fixed and oscillating prism predicted by LES., ASCE Tenth Structures Congress., pp. 109-112.

Chikamoto, T., **Murakami**, S. and Kato, S. (1992) Numerical Simulation of Velocity and Temperature Fields within Atrium based on Modified k- ϵ Model Incorporating Damping Effect due to Thermal Stratification., International Symposium on Room Air Convection and Ventilation Effectiveness., ASHRAE, pp. 660-667.

Kato, S., **Murakami, S.** and Kobayashi, H. (1992) New Scale for Evaluating Ventilation Efficiency as Affected by Supply and Exhaust Openings Based on Spatial Distribution of Contaminant., International Symosium on Room Air Convection and Ventilation Effectiveness., ASHRAE, pp. 321-332.

Deguchi, K., **Murakami**, S., Kato, S. and Takahashi, T. (1992) Field Experiment on Ventilation Characteristics of a Large-Scale Wholesale Market Building., International Symosium on Room Air Convection and Ventilation Effectiveness., ASHRAE, pp. 638-647.

Sakamoto, S., **Murakami, S.** and Mochida, A. (1992) Numerical study on flow past 2D square cylinder by Large Eddy Simulation, Comparison between 2D and 3D Computations., 2nd International Colloquium on Bluff Body Aerodynamics and Applications., pp. 7-10.

Mochida, A., **Murakami**, S. and Shoji, M. (1992) Numerical Simulation of Flowfield around Texas Tech Building by Large Eddy Simulation., First International Symposium on Computational Wind Engineering., pp. 42-27.

Murakami, S. (1992) Comparison of Various Turbulence Models Applied to a Bluff Body., First International Symposium on Computational Wind Engineering., pp. 164-179.

Kato, S., **Murakami**, S., Utsumi, Y. and Mizutani, K. (1992) Application of Massive Parallel Computer to Computational Wind Engineering., First International Symposium on Computational Wind Engineering., pp. 386-393.

Murakami, S., Mochida, A. and Sakamoto, S. (1992) Unsteady Pressure Field around Fixed and Oscillating Prism predicted by LES., Tenth Structures Congress., pp. 109-112.

Murakami, S., Shoji, M., Mochida, A., Ishida, Y. and Hayashi, Y. (1992) Numerical Simulation of Flowfield around Texas Tech Building by Large Eddy Simulation., Tenth Structures Congress., pp. 105-108.

Murakami, S. (1992) Prediction, analysis and design for indoor climate in large enclosures., ROOMVENT '92.

Kato, S., **Murakami**, S. and Ooka, R. (1992) Numerical Simulation of Horizontal Nonisothermal 3-D Jet in Room by DSM., ROOMVENT '92, pp. 95-108.

Murakami, S., Kato, S. and Nakagawa, H. (1991) Numerical prediction of horizontal non-isothermal 3-D jet in room based on the k-ε model., ASHRAE Transactions., V.97, Pt.1., pp. 38-48.

Murakami, S., Kato, S., Akabayashi, S., Mizutani, K. and Kim, Y.D. (1991) Wind tunnel test on velocity-pressure field of cross-ventilation with open windows., ASHRAE Transaction., V.97 Pt.1., pp. 525-538.

Murakami, S. (1991) The future of CFD in civil engineering: Large-scale computation with vector and massive parallel computers., US-Korea-Japan Trilateral Seminar on Frontier R & D for Constructed Facilities.

Murakami, S. and Mochida, A. (1991) Numerical simulation of air flow around surface-mounted square rib by means of ASM and k-ε EVM., ASCE 9th Structures Congress.

Murakami, S., Mochida, A., Hayashi, Y. and Sakamoto, S. (1991) Numerical study on velocity-pressure field and wind forces for bluff bodies by k-ε, ASM and LES., 8th International Conference on Wind Engineering.

Kato, S., **Murakami, S.**, Mochida, A., Akabayashi, S. and Tominaga, Y. (1991) Velocity-pressure field of cross ventilation with open windows analyzed by wind tunnel and numerical simulation., 8th International Conference on Wind Engineering., pp. {20-11}.

Kondo, Y., **Murakami, S.** and Kato, S. (1991) Numerical simulation on flow and temperature fields of large-scale indoor space., The Fourth International Conference on Computing in Civil and Building Engineering. (4th ICCCBE), pp. 207-209.

Murakami, S., Hibi, K. and Mochida, A. (1991) Numerical study of unsteady pressure fields around buildings by means of large eddy simulation., The Fourth International Conference on Computing in Civil and Building Engineering. (4th ICCCBE), 1p.

Murakami, S., Mochida, A. and Hayashi, Y. (1991) Scrutinizing k-ε EVM and ASM by means of LES and wind tunnel for flowfield around cube., Eighth Symposium on Turbulent Shear Flows.

Murakami, S., Mochida, A., Hayashi, Y. and Hibi, K. (1990/91) Numerical simulation of velocity field and diffusion field in an urban area., Energy and Buildings., 15-16., pp. 345-356.

Rodi, W. and **Murakami, S.** (1990) Turbulence models for practical applications (Part 4): Examples of model applications for 2D separated flows., Seisan-Kenkyu., Monthly Journal of Institute of Industrial Science, University of Tokyo., Vol. 42, No. 1., pp. 3-9.

Murakami, S., Kato, S. and Suyama, Y. (1990) Numerical study on flow and contaminant diffusion field as affected by flow obstacles in a conventional flow-type clean room., ASHRAE Transactions., Vol.96 Pt.2., pp. 343-355.

Murakami, S. and Kato, S. (1990) Numerical and experimental study on flow and diffusion field in room., AIVC 11th Conference.

Murakami, S., Kato, S. and Kondo, Y. (1990) Examining k-ε EVM by means of ASM for a 3-D horizontal buoyant jet in enclosed space., Engineering Turbulence Modeling and Experiments., pp. 205-214.

Murakami, S., Mochida, A. and Hayashi, Y. (1990) Examining the k-ε model by means of a wind tunnel test and large-eddy simulation of the turbulence structure around a cube., Journal of Wind Engineering and Industrial Aerodynamics., Vol. 35.

Murakami, S. (1990) Computational wind engineering., Journal of Wind Engineering and Industrial Aerodynamics., Vol. 36.

Murakami, S., Hibi, K. and Mochida, A. (1989) Visualization of turbulent flowfield generated by numerical simulation., 4th International Conference on Super Computing.

Murakami, S. and Mochida, A. (1989) Three-dimensional numerical simulation of turbulent flow around buildings using the k- ϵ turbulence model., Building and Environment., Vol. 24, No. 1., pp. 51-64.

Murakami, S. and Kato, S. (1989) Numerical and experimental study on room airflow -3-D predictions using the k-ε turbulence model., Building and Environment., Vol. 24, No. 1., pp. 85-97.

Murakami, S. and Kato, S. (1989) Current status of numerical and experimental methods for analyzing flow field and diffusion field in a room., Building System: Room air and air contaminant distribution, ASHRAE, pp. 39-56.

Murakami, S., Kato, S. and Ishida, Y. (1989) 3-D numerical simulation of turbulent air flow in and around buildings based on the k- ϵ model with generalized curvilinear coordinates., ASHRAE Transactions., Vol.95 Pt.2., pp. 30-57.

Ishida, Y., **Murakami, S.** and Kato, S. (1998) 3-D k-ε Model Based on Generalized Curvilinear Coordinates with Conservative Forms Room Airflow Simulation with Complex Geometric Shape., INTERNATIONAL SYMPOSIUM ON COMPUTATIONAL FLUID DYNAMICS-NAGOYA., pp. 1156-1161.

Murakami, S., Kato, S. and Suyama, Y. (1989) Numerical study on diffusion field as affected by arrangement of supply and exhaust openings in conventional flow type clean room., ASHRAE Transactions., Vol.95, Pt.2, pp. 113-127.

Rodi, W. and **Murakami, S.** (1989) Turbulence models for practical applications -Survey of models (Part 1): Mixing-length models and energy-equation models., Seisan-Kenkyu., Monthly Journal of Institute of Industrial Science, University of Tokyo., Vol. 41, No. 8., pp. 1-7.

Rodi, W. and **Murakami, S.** (1989) Turbulence models for practical applications -Survey of models (Part 2): Two-equation models and near wall treatment., Seisan-Kenkyu., Monthly Journal of Institute of Industrial Science, University of Tokyo., Vol. 41, No. 9., pp. 1-9.

Rodi, W. and **Murakami**, S. (1989) Turbulence models for practical applications (Part 3): Examples of model application for 2D thin-shearlayer flows., Seisan-Kenkyu., Monthly Journal of Institute of Industrial Science, University of Tokyo., Vol. 41, No. 12., pp. 6-14.

Kato, S. and **Murakami**, S. (1988) New ventilation efficiency scales based on spatial distribution of contaminant concentration aided by numerical simulation., ASHRAE Transactions., Vol. 94, Pt.2., pp. 309-330.

Murakami, S., Kato, S. and Suyama, Y. (1988) Numerical and experimental study on turbulent diffusion fields in conventional flow type clean rooms., ASHRAE Transactions., Vol. 94, Pt.2., pp. 469-493.

Kato, S., **Murakami, S.**, Kong, Chol Nam and Nakagawa, H. (1988) Model experiment on indoor climate and space air distribution in large-scale room., International Symposium on Scale Modeling, The Japan Society of Mechanical Engineers., pp. 245-255.

Murakami, S. (1988) Numerical simulation of turbulent flowfield around cubic model-current status and applications of k- ϵ model and LES., Journal of Wind Engineering., Vol. 37., pp. 239-252.

Murakami, S. and Mochida, A. (1988) 3-D numerical simulation of airflow around a cubic model by means of the k-ε model., Journal of Wind Engineering and Industrial Aerodynamics., Vol. 31., pp. 283-303.

Ooba, M., Kobayashi, N. and **Murakami, S.** (1988) Study on the assessment of environmental wind conditions at ground level in a built-up area -Based on long-term measurements using portable 3-cup anemometers-., Journal of Wind Engineering and Industrial Aerodynamics., Vol. 28., pp. 129-138.

Murakami, S. (1988) Visualization of turbulent flowfield generated by numerical simulation., International Symposium on Refined Flow Modeling and Turbulence Measurement, International Association for Hydraulic Research., pp. I-13 - I-24.

Murakami, S., Takakura, S., Morikawa, Y. and Moriyama, S. (1988) Wind tunnel modeling for turbulent flow field around building., International Symposium on Scale Modeling, The Japan Society of Mechanical Engineers., pp. 165-173.

Murakami, S., Kato, S. and Suyama, Y. (1987) Three-dimensional numerical simulation of turbulent airflow in a ventilated room by means of a two-equation model., ASHRAE Transactions., Vol. 93., Pt. 2., (No. 3091), pp. 621-642.

Murakami, S., Mochida, A. and Hibi, K. (1987) Numerical prediction of velocity and pressure field around building models -Correspondence between three-dimensional prediction by large eddy simulation and wind tunnel experiment-., 7th International Conference on Wind Engineering., pp. 1-10.

Murakami, S. (1986) Visualization of Air Flow around Obstacles in Laminar Flow Type Clean Room with Laser Light Sheet., 8th International Symposium on Contamination Control.

Akabayashi, S., **Murakami, S.**, Kato, S. and Chirifu, S. (1986) Visualization of Air Flow around Obstacles in Laminar Flow Type Clean Room with Laser Light Sheet., 8th International Symposium on Contamination Control, Milan, Sept, 9, 10, 11 and 12, 1986., pp. 691-697.

Kato, S., **Murakami**, **S**. and Chirifu, S. (1986) Study on Air Flow in Conventional Flow Type Clean Room by Means of Numerical Simulation and Model Test., 8th International Symposium on Contamination Control, Milan, Sept, 9, 10, 11 and 12, 1986., pp. 781-791.

Murakami, S., Iwasa, Y. and Morikawa, Y. (1986) Study on Acceptable Criteria for Assessing Wind Environment at Ground Level Based on Residents' Diaries., Journal of Wind Engineering and Industrial Aerodynamics., 24., pp. 1-18.

Murakami, S., Hibi, K. and Mochida, A. (1985) Visualization of computer-generated turbulent flowfield around cubic model., Fluid Control and Measurement, Tokyo, 2-6 September 1985., pp. 749-754.

Murakami, S., Kato, S. and Akabayashi, S. (1985) Visualization with Laser Light Sheet Applied to Internal and External Air Flows in Building Environmental Engineering., Fluid Control and Measurement, Tokyo, 2-6 September 1985., pp. 691-696.

Kato, S. and **Murakami**, S. (1985) Three-Dimensional Numerical Simulation of Turbulent Air Flow in Ventilated Room, by Means of 2-Equation Model., International Symposium on Computational Fluid Dynamics-Tokyo., pp. 560-571.

Murakami, S., Mochida, A. and Hibi, K. (1985) Numerical Simulation of Air Flow around Cubic Model - Correspondence between Three-dimensional Prediction by Large Eddy Simulation and Wind Tunnel Experiment -., International Symposium on Computational Fluid Dynamics- Tokyo., pp. 728-738.

Murakami, S., Tanaka, T. and Kato S. (1983) NUMERICAL SIMULATION OF AIR FLOW AND GAS DIFFUSION IN ROOM MODEL. -Correspondence between Numerical Simulation and Model Experiment-, The Fourth International Symposium on the Use of Computers for Environmental Engineering Related to Buildings., pp. 90-95.

Murakami, S. and Yoshino, H. (1983) AIR-TIGHTNESS OF RESIDENTIAL BUILDINGS IN JAPAN., AIR INFILTRATION REDUCTION IN EXISTING BUILDINGS., AIVC, 19 pp.

Kobayashi, N., **Murakami, S.**, Ave, N. and Hattori, T. (1983) EXPERIMENTS ON PASSIVE SOLAR SYSTEM WITH FULL SACLE TEST HOUSES., Air circulation technique for heating rooms using solar heat gain taken at south windows., SOLAE WORLD CONGRESS., pp. 554-558.

Murakami, S. and Komine, H. (1983) Prediction Method for Surface Wind Velocity Distribution by Means of Regression Analysis of Topographic Effects on Local Wind Speed., Journal of Wind Engineering and Industrial Aerodynamics., 15., pp. 217-230.

Murakami, S. and Fujii, K. (1983) TURBULENCE CHARACTERISTICS OF WIND FLOW AT GROUND LEVEL IN BUILT-UP AREA., Journal of Wind Engineering and Industrial Aerodynamics., pp. 133-144.

Murakami, S., Tanaka, T. and Kato, S. (1982) NUMERICAL SIMULATION OF AIR FLOW AND GAS DIFFUSION IN ROOM MODEL- Correspondence between Numerical Simulation and Model Experiment -, The Fourth International Symposium on the Use of Computers for Environmental Engineering Related to Buildings., pp. 90-95.

Murakami, S. (1982) WIND TUNNEL MODELING APPLIED TO PEDESTRIAN COMFORT., WIND TUNNEL MODELING FOR CIVIL ENGINEERING APPLICATIONS., NBS, v. 2-1-18., 18 pp.

Murakami, S. and Deguchi, K. (1981) NEW CRITERIA FOR WIND EFFECTS ON PEDESTRIANS., Journal of Wind Engineering and Industrial Aerodynamics., pp. 289-309.

Murakami, S. and Deguchi, K. (1981) MEASUREMENT OF DRAG FORCE ON PEOPLE WALKING IN WIND TUNNEL., COLLOQUE Construire avec le vent Designing with the wind., II-2-1-15., 15 pp.

Murakami, S., Uehara, K. and Komine, H. (1979) AMPLIFICATION OF WIND SPEED AT GROUND LEVEL DUE TO CONSTRUCTION OF HIGH-RISE BUILDING IN URBAN AREA., Journal of Industrial Aerodynamics, 4., pp. 343-370.

Murakami, S., Uehara, K. and Deguchi, K. (1979) WIND EFFECTS ON PEDESTRIANS: New Criteria based on Outdoor Observation of over 2000 Persons., FIFTH INTERNATIONAL CONFERENCE ON WIND ENGINEERING, III-6., pp. 1-12.

Murakami, S., Uehara, K. and Komine, H. (1978) AMPLIFICATION OF WIND SPEED AT GROUND LEVEL DUE TO CONSTRUCTION OF HIGH-RISE BUILDING IN URBAN AREA., Proceedings of the 3rd Colloquium on Industrial Aerodynamics., pp. 55-77.

Murakami, S. (1975) WIND EFFECTS ON AIR FLOWS IN HALF-ENCLOSED SPACES., London, September., 14 pp.

Shoda, T., **Murakami, S.** and Eguchi, K. (1975) Experimental Studies on Hot-Water Supply in Apartment House and Methods for Sizing of Service Water Heating Equipment., Transactions of SHASE Japan 1975-13., pp. 53-68.

Shoda, T., Eguchi, K. and **Murakami, S.** (1974) Design Method for Preventing Wall Surface Condensation in Apartment House., Transactions of SHASE Japan 1974-12., pp. 36-48.