Updated on 2018/10/23

SATO Atsushi

Affiliation Department etc. Department of Architecture, Civil Engineering and Industrial Management Engineering
Department of Architecture, Civil Engineering and Industrial Management Engineering

Title Associate Professor

Mail Address sato.atsushi@nitech.ac.jp

Research Fields, Keywords Structural Engineering

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Graduating School

1994.04 - 1998.03
Nagoya Institute of Technology Faculty of Engineering Graduated

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Graduate School

2000.03 - 2003.03
Nagoya Institute of Technology Graduate School, Division of Engineering Doctor's Course Completed

1998.04 - 2000.03
Nagoya Institute of Technology Graduate School, Division of Engineering Master's Course Completed

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Degree

Nagoya Institute of Technology - Doctor (Engineering)

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External Career

2016.08 - 2017.03
Czech Technical University in Prague Department of Steel and Timber Structures Visiting Professor

2010.04 - Now
Nagoya Institute of Technology Associate Professor

2008.04 - 2010.03 Kyoto University Assistant Professor

2007.04 - 2008.03
Nagoya Institute of Technology Assistant Professor

2006.03 - 2008.02
University of California, San Diego Visiting scholar

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Academic Society Affiliations

1998.04 - Now Architectural Institute of Japan

2003.04 - Now Japanese Society of Steel Construction

2012.05 - Now Japanese Society of Steel Construction

2011.12 - Now
Japan Steel-Fabrication Appraisal Organization

2010.11 - 2012.03
Journal of Architecture and Building Engineering

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Field of expertise (Grants-in-aid for Scientific Research classification)

Building structures/Materials

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Papers

CONTINUOUS HIGH-PANELIZED STEEL SHEET SHEAR WALLS WITH BURRING HOLES AND THE EFFECT OF VERTICAL SLITS
AIJ Journal of Technology and Desig (Architectural Institute of Japan) 24 (58) 1041 - 1046 2018.10 [Refereed]
Research paper (scientific journal) Multiple Authorship
In-line continuous high-panelized shear walls containing steel sheets with vertically aligned burring holes with at least one vertical slit every 0.91-m-wide are employed in buildings in seismically active regions. The purpose of this study is to clarify the shear resistance mechanisms of the walls with and without vertical slits. The wall that receives the shear force allows shear stress to concentrate in the intervals between the holes. All intervals between the holes were simultaneously deformed and the buckling areas were restricted by the use of ring-shaped burring ribs. The post-buckling behavior was dependent on the shapes of the tension field. The effect of vertical slits involved maintaining wall strength stable in the inelastic region. The formulas of the allowable design strength and the indexes of ultimate state strength after shear buckling were developed.
DOI

Structural Performace Evaluation of square Steel Tubular Column Under Compressive axial Force with Bending Moment
Atsushi SATO, Kenta INDEN, Kazuya MITSUI
Journal of Structural and Construction Engineering (Architectural Institute of Japan) 83 (751) 1365 - 1372 2018.09 [Refereed]
Research paper (scientific journal) Multiple Authorship
DOI

STRENGTH AND STIFFNESS OF CORRUGATED STEEL SHEET SHEAR WALLS

Takuto Serikawa, Atsushi Sato, Tetsuro Ono
Eighth International Conference on THIN-WALLED STRUCTURES 2018.07 [Refereed]
Research paper (international conference proceedings) Multiple Authorship

SHEAR RESISTANCE MECHANISMS OF HIGH-PANELIZED STEEL SHEET WALLS WITH BURRING HOLES AND THE EFFECT OF WALL WIDTHS WITH VERTICAL SLITS
Yoshimichi Kawai, Kazunori Fujihashi, Shigeaki Tohnai, Atsushi Sato, Tetsuro Ono
Eighth International Conference on THIN-WALLED STRUCTURES 2018.07 [Refereed]
Research paper (international conference proceedings) Multiple Authorship

COLLAPSE ASSESSMENT OF STEEL MOMENT FRAMES WITH SEMI-CONTINUOUS JOINTS
Atsushi SATO, František WALD, Tetsuro ONO
16th European Conference on Earthquake Engineering 1 - 9 2018.06 [Refereed]
Research paper (international conference proceedings) Multiple Authorship

EXPERIMENTAL AND NUMERICAL ANALYSIS OF THE ULTIMATE BEHAVIOUR OF SQUARE HOLLOW SECTIONS UNDER COMBINED AXIAL AND BENDING LOADS
Kazuya Mitsui, Massimo Latour, Gianvittorio Rizzano, Atsushi Sato, Vincenzo Piluso
Ingegneria Sismica/ International Journal of Earthquake Engineering (PATRON EDITORE) 35 (2) 1 - 17 2018.06 [Refereed]
Research paper (scientific journal) Multiple Authorship

EXPERIMENTAL STUDY ON SQUARE STEEL TUBULAR COLUMNS UNDER COMPRESSIVE AXIAL FORCE WITH MONOTONIC DOUBLE CURVATURE BENDING MOMENT; In case of end bending moment ratio equal to 0.5
Atsushi SATO, Kenta INDEN, Kazuya MITSUI
Journal of Structural and Construction Engineering (Architectural Institute of Japan) 83 (747) 739 - 749 2018.05 [Refereed]
Research paper (scientific journal) Multiple Authorship
DOI

Shear Resistance Mechanisms on High-Panelized Steel Sheet Walls with Burring Holes
KAWAI, Yoshimichi; FUJIHASHI, Kazunori; TOHNAI, Shigeaki; SATO, Atsushi; ONO, Tetsuro
IABSE Conference 2018, Engineering the Developing World, IABSE Symposium Report (Curran Associates, Inc) 110 466 - 473 2018.04 [Refereed]
Research paper (international conference proceedings) Multiple Authorship

Shear Resistance Mechanisms on Steel Sheet Shear Walls with Burring Holes and the Effect of Vertical Slits
Yoshimichi Kawai, Kazunori Fujihashi, Shigeaki Tohnai, Atsushi Sato, Tetsuro Ono
Journal of Structural Engineering (Architectural Institute of Japan) 64 (B) 139 - 146 2018.03 [Refereed]
Research paper (scientific journal) Multiple Authorship

Shear Resistance Mechanisms on Steel Sheet Shear Walls with Burring Holes and the Effect of Cross-Rails

Yoshimichi Kawai, Kazunori Fujihashi, Shigeaki Tohnai, Atsushi SATO, Tetsuro Ono
Behaviour of Steel Structures in Seismic Areas (Key Engineering Materials) 763 653 - 660 2018.02 [Refereed]
Research paper (international conference proceedings) Multiple Authorship
DOI

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Books

Recommendation for Design of Connections in Steel Structers
(Part : Multiple Authorship)
Architectural Institute of Japan 2012.03 ISBN: 978-4-8189-0603-7

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Review Papers

Cold-Formed Steel Special Bolted Moment Frames
Chia-Ming Uang and Atsushi Sato
STRUCTURE (National Council of Engineers Associations (NCSEA)) 8 - 10 2011.02
Introduction and explanation (commerce magazine) Multiple Authorship

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Presentations

Experimental Study of Beam-to-Column Connection with Bolted Joints, No.2 Strength Evaluation and Strain Charactaristics
Summaries of Technical Papers of Annual Meeting (Tohoku University) 2018.09 - 2018.09 Architectural Institute of Japan

Experimental Study of Beam-to-Column Connection with Bolted Joints, No.1 Load v.s. Story Drift Ratio
Summaries of Technical Papers of Annual Meeting (Tohoku University) 2018.09 - 2018.09 Architectural Institute of Japan

Collpse curve of rectangular plate with two free and two fixed edges using plastic hinge line theory
Futo Yamada, Atsushi SATO
Summaries of Technical Papers of Annual Meeting (Tohoku University) 2018.09 - 2018.09 Architectural Institute of Japan

Design Procedure Development of Light Gauge Built-up Beam under Shear Bending Forces, Part 2 Design Procedure Development
Mitsuru Sato, Shun Yoshimoto, Atsushi Sato
Summaries of Technical Papers of Annual Meeting (Tohoku University) 2018.09 - 2018.09 Architectural Institute of Japan

Design Procedure Development of Light Gauge Built-up Beam under Shear Bending Forces, Part 1 Shear Bending Test
Shun YOSHIMOTO, Atsushi SATO
Summaries of Technical Papers of Annual Meeting (Tohoku University) 2018.09 - 2018.09 Architectural Institute of Japan

Evaluation for Structual Performance of Square Steel Tubular Column
Takeshi Onogi, Atsushi Sato

Summaries of Technical Papers of Annual Meeting (Tohoku University)
2018.09 - 2018.09 Architectural Institute of Japan

Study on Square Steel Tubular Columns under Compressive Axial Force with Bending Moment, Part 6 Comparison between Recommendations and a Series of Experiment Results
Summaries of Technical Papers of Annual Meeting (Tohoku University)
2018.09 - 2018.09 Architectural Institute of Japan

Study on Square Steel Tubular Columns under Compressive Axial Force with Bending Moment, Part 5 Monotonic Double Curvature Bending Test in Case of End Bending Moment Ratio Equal to 0.5
Summaries of Technical Papers of Annual Meeting (Tohoku University)
2018.09 - 2018.09 Architectural Institute of Japan

Experimental study on H-shaped columns under compressive axial force with bending moment, Part2 Structural performance evaluation considering bending moment ratio
Summaries of Technical Papers of Annual Meeting (Tohoku University)
2018.09 - 2018.09 Architectural Institute of Japan

Experimental study on H-shaped columns under compressive axial force with bending moment, Part1 In case of bending moment ratio equal to 0.5
Summaries of Technical Papers of Annual Meeting (Tohoku University)
2018.09 - 2018.09 Architectural Institute of Japan

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Academic Awards Received

SEEBUS AWARD
2009.12
Winner : Atsushi Sato

Best Paper of JSSC
2005.11.17
Winner : Tetsuro Ono, Atsushi Sato

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Academic Activity

2013.04 - Now BCJ

2012.05 - Now Japanese Society of Steel Construction

2011.12 - Now
Japan Steel-Fabrication Appraisal Organization

2010.11 - 2012.03
Journal of Architecture and Building Engineering

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