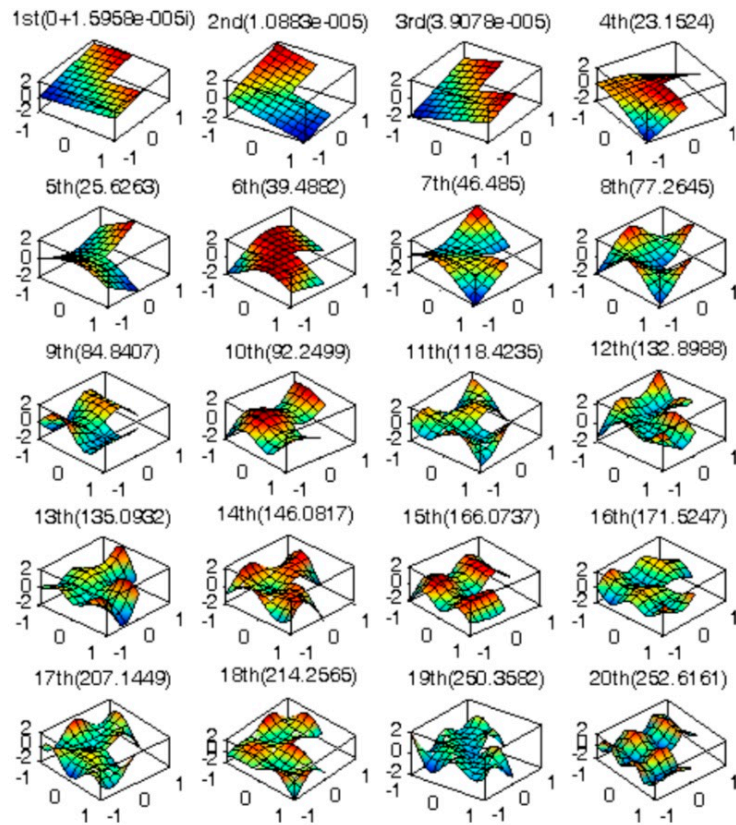




**Professor Tinh Quoc Bui**



The first 20 eigenmodes of the free L-shape plate computed by the present method.

Tinh Quoc Bui and Minh Ngoc Nguyen, Eigenvalue analysis of thin plate with complicated shapes by a novel mesh-free method, *International Journal of Applied Mechanics*, Vol. 3, No. 1, pp 21-46, 2011

See:

- [https://sites.google.com/site/tinhqbui/;](https://sites.google.com/site/tinhqbui/)
- <https://www.journals.elsevier.com/thin-walled-structures/editorial-board/tq-bui>
- <https://researchmap.jp/bqtinh/>
- <http://scholar.google.com/citations?hl=en&user=arV1Pk8AAAAJ>
- [https://www.researchgate.net/profile/Tinh\\_Quoc\\_Bui](https://www.researchgate.net/profile/Tinh_Quoc_Bui)

Computational Mechanics  
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**Biography:**

Dr. Tinh Q. Bui is currently an Associate Professor at the Department of Civil and Environmental Engineering, Tokyo Institute of Technology, Japan. He leads his Computational Mechanics group. He holds other academic positions including a Visiting Professor at Dalian University of Technology, China, and a Visiting Associate Professor at National Taiwan University of Science and Technology, Taiwan. Before joining Tokyo Tech, Prof. Bui subsequently worked as postdoctoral researcher in France, Germany, and Japan. He won both prestigious JSPS postdoctoral fellowships (standard program and senior pathway level program). Prof. Bui respectively obtained his BSc degree in Mathematics and Computer Science, VNU-HCMC University of Science in 2002; a European Master's degree in Mechanics of Constructions, University of Liège, Belgium in 2005; and a Dr. techn. degree (PhD) in Mechanical Engineering, Vienna University of Technology, Austria, 2009. Prof. Bui is currently a Subject Editor for *Applied Mathematical Modelling* (Elsevier), Associate Editor for *Mathematical Biosciences and Engineering* (AIMS), and Editorial Board Members for: *Thin-Walled Structures* (Elsevier); *SN Applied Sciences* (Springer), *International Journal for Meshfree Methods with Applications* (Springer, upcoming); and *Materials, Mathematics, J. of Composites Science* (mdpi). In 2018, Prof. Bui was awarded "The 2018 JACM Award for Young Investigators in Computational

Mechanics" from Japan Association for Computational Mechanics.

### **Research Interests:**

Computational Mechanics of Solid Materials and Structures;  
Computational Fracture Mechanics  
Continuum Damage Model;  
Phase Field Methods for Fracture;  
Material Instabilities and Strain Localization;  
Smart Materials; Composites, Laminated Layered Structures  
Coupled Problems  
Constitutive Modeling  
Numerical Methods: Extended Finite Elements; Isogeometric Analysis; Meshfree; Peridynamics.  
Computational Structural Mechanics (Plates/Beams/Shells)  
Crack Detection, Inverse Analysis, and Material Modeling based on Computational Intelligence  
Stochastic Optimization and Robustness Management & High Performance Computing

### **Selected Publications:**

- Bui QT, Nguyen NM, Zhang Ch. An efficient meshfree method for vibration of laminated composite plates. *Computational Mechanics*, 2011; 48:175-193.
- Tinh Quoc Bui and Minh Ngoc Nguyen, Eigenvalue analysis of thin plate with complicated shapes by a novel mesh-free method, *International Journal of Applied Mechanics*, Vol. 3, No. 1, pp 21-46, 2011
- Bui QT, Nguyen DD, Zhang XD, Hirose S, Batra CR. Analysis of 2-dimensional transient problems for linear elastic and piezoelectric structures using the consecutive-interpolation quadrilateral element (CQ4). *European Journal of Mechanics – A/Solids*, 2016; 58:112-130.
- Bui QT, Do VT, Ton THL, Doan HD, Tanaka S, Pham TD, Nguyen-Van TA, Yu TT, Hirose S. On the high temperature mechanical behaviors analysis of heated functionally graded plates using FEM and a new third-order shear deformation plate theory. *Composites Part B: Engineering*, 2016; 92:218-241.
- Sadamoto S, Ozdemir M, Tanaka S, Bui QT, Okazawa S. Finite rotation meshfree formulation for geometrically nonlinear analysis of flat, curved and folded shells. *International Journal of Non-Linear Mechanics* 2020, 119:103300
- Wang C, Yu TT, Curiel-Sosa LJ, Xie N, Bui QT. Adaptive chaotic particle swarm algorithm for isogeometric multi-objective size optimization of FG plates. *Structural and Multidisciplinary Optimization* 2019; 60:757-778
- Liu P, Duan HG, Le VL, Yu T, Bui QT. Buckling of stomatopod-dactyl-club-inspired functional gradient plates: A numerical study. *Composite Structures* 2019; 207:801-815.
- Ozdemir M, Sadamoto S, Tanaka S, Okazawa S, Yu TT, Bui QT. Application of 6-DOFs meshfree modeling to linear buckling analysis of stiffened plates with curvilinear surfaces. *Acta Meccanica* 2019; 229:4995-5012
- Ordemir M, Tanaka S, Sadamoto S, Yu TT, Bui QT. Numerical buckling analysis for flat and cylindrical shells including through crack employing effective reproducing kernel meshfree modeling. *Engineering Analysis with Boundary Elements*; 2018; 97:55-66.
- Zhang C, Mao C. Curiel-Sosa LJ, Bui QT. Meso-scale finite element simulations of 3D braided textile composites: Effects of force loading modes. *Applied Composite Materials* 2018; 25:823-841.
- Gu J, Yu TT, Le VL, Nguyen TT, Bui QT. Adaptive multi-patch isogeometric analysis based on locally refined B-splines. *Computer Methods in Applied Mechanics and Engineering* 2018, 339:704-738
- Sadamoto S, Ozdemir M, Tanaka S, Taniguchi K, Yu TT, Bui QT. An effective meshfree reproducing kernel method for buckling analysis of cylindrical shells with and without cutouts. *Computational Mechanics* 2017; 59:919-932
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- Nguyen NM, Bui QT, Truong TT, Tanaka S, Hirose S. Numerical analysis of 3-D solids and composite structures by an enhanced 8-node hexahedral element. *Finite Elements in Analysis and Design* 2017;131:1-16
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Tanaka S, Suzuki H, Sadamoto S, Imachi M, Bui QT. Analysis of cracked shear deformable plates by an effective meshfree plate formulation. *Engineering Fracture Mechanics*, 2015; 144:142-157.

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