

Thomas Menouillard

Northwestern University
Department of Mechanical Engineering
2145 Sheridan Road
Evanston IL, 60208-3111, U.S.A.
PHONE: (1) 847-491-3046
EMAIL: t-menouillard@northwestern.edu
URL: <http://tam.mech.northwestern.edu/thomasm>

Date of Birth: June 14th 1980
Country of citizenship: France

EDUCATION

- **Ph.D. Applied Mechanics** *INSA Lyon, France, 2007*
Thesis entitled: "Numerical methods for crack propagation by XFEM and damage computation in explicit dynamics"
Research developments within a French Atomic Commission Scholarship.
- **M.S. Engineering Mechanics** *INSA Lyon, France, 2004*
Representative courses: Finite Element Method, fluid mechanics, aerodynamic mechanics, continuum mechanics.
- "Agrégation de mécanique" *ENS Cachan, France, 2003*
National exam to enter the teaching profession at secondary and higher degree in France (national ranked 8th).
- **B.S. Mechanical and Civil Engineering** *ENS Cachan and Paris 6 University, France, 2002*
Representative courses: Continuum mechanics, fluid mechanics (compressible and incompressible), thermodynamic, thermal mechanics, civil engineering, mechanical technology, planning process, automatic and robotic systems.

RESEARCH EXPERIENCE

- **Post-doctoral research** *Northwestern University, Evanston, U.S.A., 2007-present*
Adviser: **Prof. Ted Belytschko**
Work on numerical methods for fracture mechanics such as: XFEM, Meshfree, Spectral element, Shell elements.
- **Ph.D. Research** *CEA Saclay - INSA Lyon, France, 2004-2007*
Adviser: **Prof. Alain Combescure**
Development of Mass lumping strategies for efficient use of XFEM in explicit codes, and Integration of the XFEM and orthotropic damage model in the commercial explicit code EUROPLEXUS at the French Atomic Commission.

OTHER TECHNICAL SKILLS AND EXPERIENCE

- **Softwares, and Programming Skills:**
 - Programming: C, C++, Fortran, Pascal, Gibiane, Matlab, Maple, Mathcad, and \LaTeX .
 - Experience working in Windows and Linux environments.
- **Teaching Experience** *INSA Lyon, France, 2003-2007*
Mathematics Algebra (192 hours), Mechanics (20 hours), Mathematics Analysis (40 hours).
- **Reviewer for "International Journal for Numerical Methods in Engineering"**, since 2009
- **Member of the administrative council of the Laboratory LaMCoS** *INSA Lyon, 2005-2006*
Acted as graduate student representative at faculty and committee meetings that concerned any decision pertaining to the laboratory.
- **Development of a personal code for fluid and solid mechanics computation.**

LANGUAGES

- **French:** Native,
 - **English:** Fluent, *studied in class from 1993 until 2003*
 - **German:** Intermediate level, *studied in class from 1991 until 2000, and in 2009*
 - **Spanish:** Beginner, *studied in 2008*
 - **Korean:** Beginner, *studied in 2009*
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