

Christophe Germay

Personal Data	Date of Birth : April 27 th , 1978 Citizenship : Belgian Address : 37, rue des vingt deux 4000 Liège Belgium Phone : Cellular +32 (0)4 496 02 09 82 e-mail : christophe_germay@hotmail.com
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Main Interests	Research in mechanics applied to geological problems. Special interest in the areas of mechanical vibrations, rock cutting and drilling. Non-linear dynamics.
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Education	University of Minnesota, Dept. of Civil Engineering (Minneapolis, MN). M.S. in Geological Engineering: September 2001 – December 2002. Grade (GPA): 4.0 University of Liege, Faculty of Applied Sciences (Liège, Belgium). B.S. in Engineer in Physics: September 1996 – June 2001. Grades: 1 ^{ere} épreuve de candidat ingénieur, Septembre 1996 – Septembre 1997, Satisfaction. 2 ^{eme} épreuve de candidat ingénieur, Septembre 1997 – Juin 1998, Satisfaction. 1 ^{ere} épreuve ingénieur civil physicien, Septembre 1998 – Juin 1999, Satisfaction. 2 ^{eme} épreuve ingénieur civil physicien, Septembre 1999 – Juin 2000, Grande Distinction. 3 ^{eme} épreuve ingénieur civil physicien, Septembre 2000 – Juin 2001, Distinction.
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Research Experience	M.S. Research Project Thesis title : <i>Self-excited vibrations of drag bits</i> Advisers : Dr. Emmanuel Detournay. The research was oriented towards the analysis of a novel approach to model the self-excited stick-slip oscillations of a rotary drilling system with a drag bit. This model takes into consideration not only the axial and torsional modes of vibration, but also the non-linear coupling between these two modes through bit-rock interaction laws. The delayed and coupled nature of this interaction is ultimately responsible for the occurrence of self-excited vibrations, which can degenerate into stick-slip oscillations under certain conditions. This research dealt with (i) adding new elements in the model, namely a more realistic bit geometry and a supplementary degree of freedom in the description of the drillstring, (ii) optimization of the computational algorithm, (iii) a linear stability analysis of the trivial stationary motion, and (iv) a comprehensive analysis of the system response.
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Awards and Honors	University of Minnesota's Dept. of Civil Engineering Sommerfeld Fellowship , 2001-2002.
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Professional Record	Commonwealth Scientific and Industrial Research Organization (CSIRO), Petroleum Division (Perth, WA, Australia). Visiting Student: August 2003. June 2002-August 2002. Touch and Go Restaurant (Liège, Belgium) Assistant Manager: August 2000 – September 2001. University of Liège, Faculty of Applied Sciences (Liège, Belgium).
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Examiner for Dr. J.P. Jeukenne (Professor in Physics, ULG): Septembre 1998 – June 2001.

Sobelvet (Seraing, Belgium)
Student Job: August 2000 – September 2000.

Bureau d'études M. Germy (Liège, Belgium)
Student Job: August 1999.

VEKA Platten (Battice, Belgium)
Student Job: August 1998 – September 1998.

Derkenne Couline (Barchon, Belgium)
Student Job: July 1996.

Labo Routier Liegeois (Jupille, Belgium)
Student Job : July 1995.

Computer Skills Experience using FLAC, SAMCEF, Mathematica, Fortran and Matlab.

Language Skills French (mother tongue) and fluent in English.

Personal References Dr. Emmanuel Detournay
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