

ALLEGATO C – CURRICULUM VITAE AI FINI DELLA PUBBLICAZIONE



Curriculum vitae

PERSONAL INFORMATION Davide Tonazzi

WORK EXPERIENCE

15/07/2008–31/08/2008 Mechanical Engineering

Indivest LT, Latina (Italy)

Stage experience at the INDIVEST-LT, on the risk analysis of extrusion process of aluminium profiles, in order to revise the "Document on valuation of risk" related to D. Lgs 81/08.

01/11/2014–31/10/2015 Research Engineer

University of Rome "LA SAPIENZA", Rome (Italy)

Estimation of contact stiffness by continuous numerical approach and experimental data: the research work has been developed in the framework of the collaboration between the LaMCoS (Contact and Structure Mechanics Laboratory) of INSA-LYON and the DIMA (Department of Mechanical and Aerospace Engineering) of University of Rome "LA SAPIENZA" for a French National Research Project (ANR-CoMATCo).

Design and development of a newer innovative tribometer in collaboration with Prof. Massi Francesco at the Laboratory of Mechanical Vibrations, DIMA, University of Rome "LA SAPIENZA". The experimental setup allows to investigate and analyse tribological issues characterized by low amplitude frictional vibrations.

01/11/2015–Present POST-DOC position

LaMCoS (Contact and Structure Mechanics Laboratory), INSA of Lyon, Lyon (France)

Numerical Analysis of high loaded oscillating roll-bearings: The research project is developed in collaboration between the LaMCoS of INSA-LYON and the SKF Aerospace-FRANCE.

EDUCATION AND TRAINING

03/10/2008 Mechanical Engineering Bachelor's Degree

University of Rome "La Sapienza", Rome

Title of the Thesis: "Analisi dei Rischi del processo di formatura di profili in alluminio all'interno di una azienda metalmeccanica". July 2008- August 2008 | Stage at the INDIVEST-LT

18/07/2011 Mechanical Engineering Master's Degree

University of Rome "La Sapienza", Rome (Italy)

Title of the Thesis: "Studio numerico e sperimentale del fenomeno di instabilità nel contatto di un freno a disco automobilistico". January 2011-June 2011 | Stage at the Laboratory of Mechanical Vibrations, DIMA, University of Rome.

04/12/2014 Ph.D. Degree in "Theoretical and applied Mechanics" and Ph.D. Degree in "Génie Mécanique"

University of Rome "LA SAPIENZA", Rome (Italy) and LaMCoS, INSA de Lyon, Ecole Doctorale MEGA, Lyon (France)

Title of the PhD thesis: "Macroscopic frictional contact scenarios and local contact dynamics: at the origins of "macroscopic stick-slip", mode coupling instabilities and stable continuous sliding".

PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B1	C1	B2	B2	B2
French	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills

Responsible for one year of a project dedicated to junior researchers at the University of Rome 'La Sapienza', 2013 entitled "Studio dell'instabilità indotta dall'attrito nei sistemi in contatto strisciante: analisi numerica e Sperimentale" (Study of instabilities induced by the friction for systems in frictional contact)

Reviewer for the following international journals:

- Journal of Automobile Engineering (Sage)
- Advances in Mechanical Engineering (Sage)
- Meccanica (Springer)
- Mechanics and Industry (EDP Sciences)

Job-related skills

I was director and co-director of the several Master and Erasmus students in the field of the Mechanical Vibrations and Frictional Contact Dynamics, both experimentally and numerically, at the University of Rome "LA SAPIENZA".

During the PhD thesis I learned and handled some important useful tools for the study of tribological issues:

- the experimental systems for measuring mechanical vibrations of the considered system: accelerometers, laser vibrometer, hammer and shaker excitation;
- the numerical non-commercial code (PLAST2D) dedicated to study transient non-linear contact phenomena;
- the ANSYS numerical code for the study of the dynamic response of the studied system;
- the MATLAB tool for processing and analysing the experimental data.

I participated to the developing of a newer experimental setup (TRIBOWAVE) and newer experimental techniques for contact issue at the LaMCoS laboratory during my PhD thesis. This setup is dedicated to reproduce and investigate the system response and the contact behaviour of two bodies in frictional sliding.

Good knowledge of software such as ANSYS, MATLAB, SOLIDEDGE, SOLIDWORKS and PLAST2D.

ADDITIONAL INFORMATION

Teaching

- **"Laboratory of Mechanical Vibrations", on 2014/2015:** University of Rome "LA SAPIENZA" for students at the 5° year of the Master Degree in Mechanical Engineering.

Publications- International Journal

1. Davide Tonazzi, Francesco Massi, Antonio Culla, Laurent Baillet, Annalisa Fregolent and Yves Berthier, *"Instability scenarios between elastic media under frictional contact"*, **Mechanical Systems and Signal Processing**, 40(2):754–766, 2013. doi: 10.1016/j.ymssp.2013.05.022.
2. Davide Tonazzi, Francesco Massi, Laurent Baillet, Antonio Culla, Mariano Di Bartolomeo and Yves Berthier, *"Experimental and numerical analysis of frictional contact scenarios: from macro stick-slip to continuous sliding"*, **Meccanica**, 2014. doi: 10.1007/s11012-014-0010-2.

Publications- International Conference

3. Culla A., Tonazzi D., Massi F., Fregolent A., “*Response surface model of a brake system to optimize structural modifications for squeal noise suppression*”, **INTERNATIONAL CONGRESS ON NOISE INTERNOISE**, New York, 2012.
4. Massi F., Di Bartolomeo M., Tonazzi D., Berthier Y., “*On the origins of friction induced vibrations and contact instabilities*”, **EUROBRAKE**, Dresden, Germany, 17-19 June 2013.
5. Tonazzi D., Massi F., Culla A., Fregolent A., Berthier Y., “*Role of damping on contact instability scenarios*”, **World Tribology Congress**, Turin, 2013.
6. Tonazzi D., Massi F., Baillet L., Fregolent A., Berthier Y., “*Global dynamics and local contact behaviour during frictional instabilities: numerical modeling of dry friction and experimental validation*”, **ACT 2014**, Marrakesh, Morocco.
7. Tonazzi D., Massi F., Baillet L., Di Bartolomeo M., Culla A., Fregolent A., Berthier Y., “*At the origin of contact instabilities: from macro stick-slip to mode coupling, up to stable sliding state*”, **EUROBRAKE 2014**, Lille, France.
8. Tonazzi D., Massi F., Baillet L., Culla A., Fregolent A., Regis E., Lambert M., “*Experimental and numerical characterization of system response under dry frictional contact*”, **ISMA- International Conference on Noise and Vibration Engineering**, Leuven, Belgium, 2014.
9. F. Massi, D. Tonazzi, M. Di Bartolomeo, L. Baillet, “*On the friction induced vibrations and macroscopic frictional scenarios*”, **SAE Brake Colloquium & Exhibition - 32nd Annual**, Burlingame (San Francisco), California, USA, October 5-8, 2014.

Publications- National Conference

10. Tonazzi D., Di Bartolomeo M., Massi F., Baillet L., Fregolent A., Culla A., Regis E., “*Experimental observations of stick-slip instability: discussion and comparison with numerical results on wave and rupture propagation*”, **XXI CONGRESSO ASSOCIAZIONE ITALIANA DI MECCANICA TEORICA E APPLICATA**, Italia, Turin, 2013.
11. Culla A., Tonazzi D., Massi F., “*Estimation of damping for highly damped structure with high modal densities*”, **XXI CONGRESSO ASSOCIAZIONE ITALIANA DI MECCANICA TEORICA E APPLICATA**, Italia, Turin, 2013.

Roma, 22/03/2016

Firma

