



**Contact information:**

Email: [guoying.zhao@ulb.ac.be](mailto:guoying.zhao@ulb.ac.be)

Address: Université Libre de Bruxelles av. F.D. Roosevelt, 50, B-1050 Brussels, Belgium

**Fields of research of interest to you**

Active noise and vibration control; Structural dynamics; Smart mechatronic structures; Nonlinear dynamics and control

**CV**

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<b>Name and surname:</b>	Guoying Zhao
<b>Date of birth</b>	27.02.1986
<b>Academic title:</b>	PhD
<b>Institution and year of PhD obtained:</b>	Production engineering, Machine design and Automation Division, Mechanical Department, KU Leuven, Belgium. 2015

Personal Link at ULB:

<http://beams.ulb.ac.be/users/guoying-zhao>

## Publications:

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### 1. Peer-reviewed journal contributions:

1. **G. Zhao**, N. Alujevic, B. Depraetere, G. Pinte, J. Swevers, P. Sas, Experimental study on active structural acoustic control of rotating machinery using rotating piezo-based inertial actuators, **Journal of Sound and Vibration**, vol 348, pp: 15-30, 2015. [6 citations]
2. **G. Zhao**, G. Pinte, N. Alujevic, B. Depraetere, P. Sas, Adaptive-passive control of structure-borne noise of rotating machinery using a pair of shunted inertial actuators, **Journal of Intelligent Material Systems and Structures**, 2016, 27(12), 1584-1599. [1 citation]
3. **G. Zhao**, Alujevic, N., Depraetere, B., Sas, P. (2014). Dynamic analysis and  $\mathcal{H}_2$  optimization of a piezo-based tuned vibration absorber. **Journal of Intelligent Material Systems and Structures**, vol.26, 15: pp. 1995-2010, 2014. [2 citations]
4. N. Alujević, **G. Zhao**, B. Depraetere, B. Pluymers, P. Sas, W. Desmet,  $\mathcal{H}_2$  optimal vibration control using inertial actuators and a comparison with tuned mass dampers, **Journal of Sound and Vibration**, Volume 333, Issue 18, pp. 4073-4083, 2014. [7 citations]
5. N. Alujević, H. Wolf, B. Depraetere, **G. Zhao**, Z. Domazet, B. Pluymers and W. Desmet, Self-tuneable velocity feedback for active isolation of random vibrations in subcritical two degree of freedom systems, **Acta Acoustica united with Acoustica**, 101(5), 950-963 (2015). [2 citations]

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### 2. Peer-reviewed conference contributions:

1. **G. Zhao**, N. Alujevic, B. Depraetere, and P. Sas. Active structural acoustic control of gear noise using a pair of piezo-based rotating inertial actuators. **Proceedings of 7th ECCOMAS Thematic Conference on Smart Structures and Materials**, 3-6 June, 2015, Azores, Portugal, Azores, Portugal (oral presentation).
2. **G. Zhao**, N. Alujevic, B. Depraetere, G. Pinte, J. Swevers and P. Sas. Adaptive-passive control of noise radiation of gear-box systems using a pair of shunted piezo-based rotating inertial actuators. **Proceedings of SPIE Smart Structures NDE**, 8-12, March 2015, San Diego, U.S. (oral presentation).
3. **G. Zhao**, N. Alujevic, B. Depraetere, G. Pinte, J. Swevers, P. Sas, Active structural acoustic control of rotating machinery using piezo-based rotating inertial actuators. **Proceedings of International Conference on Noise and Vibration Engineering (ISMA 2014)**, 15-17. September 2014, Leuven, Belgium (oral presentation).
4. **G. Zhao**, N. Alujevic, B. Depraetere, G. Pinte, J. Swevers, P. Sas, A pair of piezo-based rotating inertial actuators for active structural acoustic control of rotating machinery,

- Proceedings of ICAST 2014**, 6-8, October, The Hague, The Netherlands (oral presentation).
5. **G. Zhao**, W. Jacobs, B. Depraetere, N. Alujevic, G. Pinte, P. Sas, (2013). Modal analysis of a piezo based axisymmetric rotational vibration absorber. **Proceedings of IOMAC 2013**, 13-15 May 2013, Guimaraes, Portugal (oral presentation).
  6. N. Alujevic, **G. Zhao**, B. Depraetere, B. Pluymers, P. Sas, W. Desmet.  $\mathcal{H}_2$  optimal vibration control using tuned mass dampers and inertial actuators: comparison of passive and active control effects. . **AIA-DAGA 2013 Conference on Acoustics. Merano**, Italy, 18-21 March 2013 (art.nr. AIADAGA2013/752) (oral presentation).
  7. G. Zhao, G. Pinte, S. Devos, J. Swevers and P. Sas. A piezo-based rotational inertia shaker for the active control of rotating machinery. **Proceedings of International Conference on Noise and Vibration Engineering (ISMA 2012)**, Leuven, Belgium (oral presentation)
  8. **G. Zhao**, G. Pinte, S. Devos, J. Swevers, P. Sas, W. Desmet, Design and Active Structural Acoustic Control of an axisymmetric rotational inertia shaker. **31st Benelux Meeting On Systems and Control**, 27-29 March 2012, Heijen/Nijmegen, The Netherlands (oral presentation).

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### 3. Thesis

**G. Zhao**, N. Alujevic, P. Sas, Active Structural Acoustic Control of Rotating Machinery using Piezo-Based Rotating Inertial Actuators, PhD thesis, **KU Leuven**, Department of Mechanical Engineering, PMA, February 2015