



**Professor Menglan Duan**

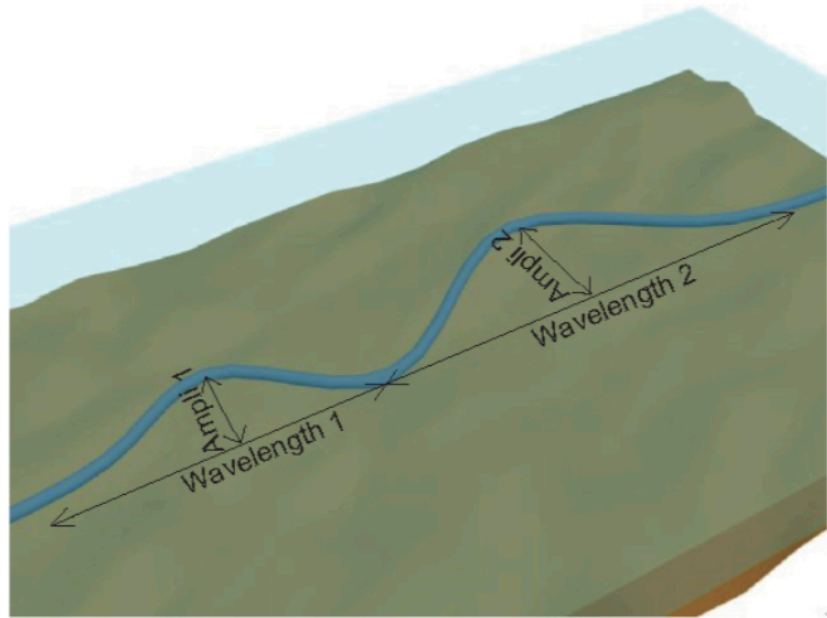
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[https://www.researchgate.net/profile/Menglan\\_Duan](https://www.researchgate.net/profile/Menglan_Duan)

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### **Selected Publications:**

- Tianfeng Zhao, Menglan Duan, Xiaodong Pan and Xianhong Feng, "Lateral buckling of non-trenched high temperature pipelines with pipelay imperfections", *Petroleum Science*, Vol. 7, No. 1, 2010, pp. 123-131
- Chen An, Xavier Castello, Menglan Duan, Romildo D. Toledo Filho and Segen F. Estefen, "Ultimate strength behaviour of sandwich pipes filled with steel fiber reinforced concrete", *Ocean Engineering*, Vol. 55, pp 125-135, December 2012
- Chen An, Menglan Duan, Xavier Costello, Romildo D. Toledo Filho, Andrielli M. Oliveira and Segen F. Estefen, "Limit strength of new sandwich pipes with strain hardening cementitious composites (SHCC) core: Finite element modeling", *Proceedings of the ASME 31st International Conference on Ocean, Offshore and Arctic Engineering (OMAE2012)*, July 1-6, 2012, Rio de Janeiro, Brazil, Paper No. OMAE2012-83589, 2012
- Chen An, Menglan Duan, Romildo D. Toledo Filho and Segen F. Estefen, "Collapse of sandwich pipes with PVA fiber reinforced cementitious composites core under external pressure", *Ocean Engineering*, Vol. 82, pp 1-13, May 2014
- Xianguang Zeng and Menglan Duan, "Mode localization in lateral buckling of partially embedded submarine pipelines", *International Journal of Solids and Structures*, Vol. 51, No. 10, pp 1991-1999, May 2014
- Xinhu Zhang and Menglan Duan, "Prediction of the upheaval buckling critical force for imperfect submarine pipelines", *Ocean Engineering*, Vol. 109, pp 330-343, November 2015
- Jijun Gu, Bing Dai, Yi Wang, Mingjie Li and Menglan Duan, "Dynamic analysis of a fluid conveying pipe under axial tension and thermal loads", *Ships and Offshore Structures*, 2016
- J. Gu, Ma. Tianqi, and D. Menglan, Effect of aspect ratio on the dynamic response of a fluid-conveying pipe using the Timoshenko beam model, *Ocean Eng.*, vol. 114, pp. 185-191, 2016.



**Fig. 2** A possible imperfection configuration in practice

From: Tianfeng Zhao, Menglan Duan, Xiaodong Pan and Xianhong Feng, "Lateral buckling of non-trenched high temperature pipelines with pipelay imperfections", *Petroleum Science*, Vol. 7, No. 1, 2010, pp. 123-131

Tianqi Ma, Jijun Gu and Menglan Duan, "Dynamic response of pipes conveying two-phase flow based on Timoshenko beam model", Publication is not identified in the pdf file, September 2016

Yingying Wang, Xihu Zhang, Yu Zhao, Haoran Chen, Menglan Duan and Segen F. Estefen, "Perturbation analysis for upheaval buckling of imperfect buried pipelines based on nonlinear pipe-soil interaction", *Ocean Engineering*, Vol. 132, pp 92-100, March 2017

Zingkun Zhou, Menglan Duan and Joel Jurado Granados, "Precise integration method for natural frequencies and mode shapes of ocean risers with elastic boundary conditions", *Applied Mathematical Modelling*, Vol. 61, pp 709-725, 2018

Peng Zhang, Jinsheng Ma, Jinbin Zhang, Menglan Duan and Jianmin Ma, "A novel centralizer layout scheme of TTR pipe-in-pipe system applied for vibration mitigation", *MEIE 2018, IOP Conference Series: Journal of Physics: Conference Series* Vol. 1074, 012184, 2018

Xihu Zhang, C. Guedes Soares, Chen An and Menglan Duan, "An unified formula for the critical force of lateral buckling of imperfect submarine pipelines", *Ocean Engineering*, Vol. 166, pp 324-335, 15 October 2018

Zhiqi Li, Chen An and Menglan Duan, "An analytical approach for elastic and non-elastic buckling of pipes under external/internal pressures", *Ocean Engineering*, Vol. 187, Article 106160, 1 September 2019

Fangqiu Li, Chen An, Menglan Duan and Jian Su, "Combined damping model for dynamics and stability of a pipe conveying two-phase flow", *Ocean Engineering*, Vol. 195, Article 106683, 1 January 2020