

讲座信息

讲座一：Cavitation Detection in Hydraulic Turbines

报告人：ESCALER PUIGORIOL, FRANCESC XAVIER（西班牙加泰罗尼亚理工大学流体力学系的副教授）

讲座二：Vibration Behavior Investigation of the Prototype Francis Runner

报告人：黄星星（瑞士安德里兹水电研发工程部工程师）

讲座时间：9月18日上午8:00

讲座地点：清华大学热能系报告厅

邀请教师：王正伟老师

报告人个人简介：

- 1、ESCALER PUIGORIOL, FRANCESC XAVIER，西班牙加泰罗尼亚理工大学流体力学系的副教授，研究方向为流体机械空化、振动，风力发电机组振动，曾在瑞士洛桑联邦工程技术学院水力机械与流体力学研究所水力机械试验室（LMH of EPFL）做研究助理。

近5年的代表性期刊论文：

- (1) De La Torre, O., Escaler, X., Egusquiza, E., Farhat, M., 2013, "Experimental investigation of added mass effects on a hydrofoil under cavitation conditions", Journal of Fluids and Structures. Accepted (in press).
- (2) Escaler, X., De La Torre, O., Egusquiza, E., 2011, "Analysis of chatter marks damage on the Yankee dryer surface of a tissue machine", Engineering Failure Analysis, vol. 23, pp. 44-54.
- (3) Gardella, M., Egusquiza, E., Escaler, X., Goti, A., 2010, "Managing costs and incidences in industrial plant equipment", Hydrocarbon Processing, vol. 89, no. 1, pp. 55-62.
- (4) Lais, S., Quanwei, L., Henggeler, U., Weiss, T., Escaler, X., Egusquiza, E., 2009, "Dynamic analysis of Francis runners-experiment and numerical simulation", International Journal of Fluid Machinery and Systems, vol. 2, no. 4, pp. 303-314.
- (5) Ekanger, J.V., Kjeldsen, M., Escaler, X., Kawakami, E., Arndt, R., 2012, "Cavitation intensity measured on a Naca 0015 hydrofoil with various gas contents", Proceedings of the 8th International Symposium on Cavitation (Singapore).
- (6) De La Torre, O., Escaler, X., Egusquiza, E., Dreyer, M., Farhat, M., 2012, "The effect of cavitation on the natural frequencies of a hydrofoil", Proceedings of the 8th International Symposium on Cavitation (Singapore).
- (7) Escaler, X., Hutter, J., Egusquiza, E., Farhat, M., Avellan, F., 2010, "Modal behavior of a reduced scale pump-turbine impeller. Part I. Experiments", Proceedings 25th IAHR Symposium on Hydraulic Machinery and Systems (Timisoara, Romania).
- (8) Escaler, X., Liang, Q., Valero, M., Egusquiza, E., Sick, M., Weiss, T., 2008, "Experimental modal analysis of a francis model Runner", Proceedings 24th IAHR Symposium on Hydraulic Machinery and Systems (Foz do Iguasu, Brasil).
- (9) Egusquiza, E., Escaler, X., Valero, M., Coussirat, M., 2008, Remote monitoring of cavitation in Francis turbines, Proceedings of the conference on Cavitation in Turbo-Machinery & Medical Applications (Warwick, UK).
- (10) Liang, Q., Valero, M., Egusquiza, E., Escaler, X., SEIDEL, U., 2008, "Added Mass Effects In Hydraulic Turbines", Proceedings of the 12th International Symposium on Transport Phenomena and Dynamics of Rotating Machinery (Honolulu, Hawaii, USA).

- 2、黄星星，主要从事高水头水轮机组振动、动静应力分析、水泵水轮机机组振动、水轮机模态分析等研究工作。现在是安德里兹水电瑞士研发中心的工程师，曾在西班牙巴塞罗那加泰罗尼亚理工大学工业故障诊断中心(CDIF)做研究助理。

代表性期刊论文

- (1) Xingxing Huang, Carme Valero, Eduard Egusquiza, Alexandre Presas, Alfredo Guardo: "Numerical and experimental analysis of the dynamic response of large submerged trash-racks". Computers & Fluids, Volume 71, 30 January 2013, Pages 54-64.
- (2) Eduard Egusquiza, Carme Valero, Xingxing Huang, Esteve Jou, Alfredo Guardo, Cristian Rodriguez: "Failure investigation of a large pump-turbine runner". Engineering Failure Analysis, Volume 23, July 2012, Pages 27-34.
- (3) X.HUANG, E.EGUSQUIZA, C.VALERO:"The effect on boundary condition on the structural response of a pump-turbine" 3rd IAHRWG Meeting, October 14-16, 2009 (Brno, Rep.Xeca)
- (4) HUANG,X, VALERO,C, EGUSQUIZA,E., FARHAT,M, AVELLAN,F: "Modal behaviour of a reduced scale pump turbine impeller. Part. II: Numerical simulation." 25th IAHR Symposium on Hydraulic Machinery and Systems, September-2010. (Timisoara. ROMANIA)
- (5) C.VALERO, E.EGUSQUIZA, A.GUARDO, HUANG,X: "Fluid-structure Interaction in Submerged Structures". IV International Conference on Computational Methods for Coupled Problems in Science and Engineering. CIMNE. Junio- 2011 (Kos. GRECIA)
- (6) A Presas,C Valero,X Huang, E Egusquiza,M Farhat and F Avellan Analysis of the dynamic response of pump-turbine runners- Part I: Experiment. 26th IAHR Symposium on Hydraulic Machinery and Systems. Beijing, China. August, 2012.
- (7) X.HUANG: "Contribution to the Dynamic Response of Hydraulic Turbomachinery Components".Invited lecture, Tsinghua University. June, 2012.
- (8) X.HUANG: "My Approach to a research project using FEA --Dynamic behavior analysis of Pump-Turbine Runner".Invited lecture, Tsinghua University. June, 2012.
- (9) X.HUANG: "Dynamic response of submerged trash-racks:Attachment and added mass effects". Invited lecture, Xi'an University of Technology. August, 2012.
- (10) X.HUANG: "Dynamic behavior analysis of Pump-Turbine". Invited lecture, Xi'an University of Technology. August, 2012.