



Technical Sessions (Tuesday Evening, September 18)

Tuesday Evening (September 18) 15:50 - 17:50

Hydraulic Turbines 8 (RY202)

Chairs: Dr. Koichi Yonezawa (Central Research Institute of Electric Power Industry, Japan), Mr. Qinghua Shi (Dongfang Electrical Machinery Co., Ltd., China)

[IAHR2018-139](#) **“Investigations of rotating stall inception in a propeller turbine runner operating in low-load conditions”**, Sebastien Houde (Laval University, Canada), Claire Deschenes (Laval University, Canada), Guy Dumas (Laval University, Canada), Yvan Maciel (Laval University, Canada)

[IAHR2018-146](#) **“Reduced scale model testing for prediction of natural frequencies and hydro-acoustic resonances in hydropower plants operating in off-design conditions”**, Arthur Favrel (Ecole Polytechnique Federale de Lausanne, Switzerland), Joao Gomes Pereira Junior (Ecole Polytechnique Federale de Lausanne, Switzerland), Christian Landry (Power Vision Engineering Sarl, Switzerland), Sebastien Alligne (Power Vision Engineering Sarl, Switzerland), Christophe Nicolet (Power Vision Engineering Sarl, Switzerland), Francois Avellan (Ecole Polytechnique Federale de Lausanne, Switzerland)

[IAHR2018-149](#) **“Numerical study of the flow dynamics at no load operation for a high head Francis turbine at model scale.”**, Melissa Fortin (Laval University, Canada), Bernd Nennemann (Andritz Hydro Canada Inc., Canada), Sebastien Houde (Laval University, Canada), Claire Deschenes (Laval University, Canada)

[IAHR2018-151](#) **“Hydraulic turbine start-up: a fluid-structure simulation methodology”**, Matthieu Melot (Universite Laval, Canada), Bernd Nennemann (Andritz Hydro Canada Inc., Canada), Joel Chamberland-Lauzon (Andritz Hydro Canada Inc., Canada), Claire Deschenes (Universite Laval, Canada), Maxime Coulaud (Universite Laval, Canada)

[IAHR2018-152](#) **“Financial analysis for optimization of hydropower plants regarding hydro-abrasive erosion: A study from Indian Himalayas”**, Anant Kumar Rai (Indian Institute of Technology Roorkee, India), Arun Kumar (Indian Institute of Technology Roorkee, India), Thomas Staubli (Lucerne University of Applied Science and Arts, Hochschule Luzern, Switzerland)

[IAHR2018-222](#) **“PARAMETRIC OPTIMIZATION TO REDUCE EROSION IN A FRANCIS TURBINE RUNNER”**, Esteban Valencia (Escuela Politecnica Nacional, Ecuador), Edwin Bone (Escuela Politecnica Nacional, Ecuador), Jair Yanez (Escuela Politecnica Nacional, Ecuador), Sergio Galvan (Universidad Michoacana de San Nicolas de Hidalgo, Mexico), Victor Hidalgo (Escuela Politecnica Nacional, Ecuador), Edgar Cando (Escuela Politecnica Nacional, Ecuador)