



Technical Sessions (Monday Afternoon, September 17)

Monday Afternoon (September 17) 13:00 - 15:00

Hydraulic Turbines 2 (RY203)

Chairs: Dr. Kiyohito Tani (Hitachi Mitsubishi Hydro Corporation, Japan), Prof. Stefan Riedelbauch (University of Stuttgart, Germany)

[IAHR2018-382](#) **“Influence of Guide Vane Clearance on Internal Flow of Medium Specific Speed Francis Turbine”**, Kishorkumar Gnanasekaran (EAML ENGINEERING CO., LTD., Japan), Tadachika Tanaka (EAML ENGINEERING CO., LTD., Japan), Naoki Yamaguchi (EAML ENGINEERING CO., LTD., Japan), Kazuyoshi Miyagawa (WASEDA University, Japan), Toui Taniwaki (EAML ENGINEERING CO., LTD., Japan), Wataru Takahashi (WASEDA University, Japan)

[IAHR2018-384](#) **“Performance variation study on bulb turbines with different water head under considering free surface and water gravity”**, Yaping Zhao (Xi'an University of Technology, China), Weili Liao (Xi'an University of Technology, China), Xiaobo Zheng (Xi'an University of Technology, China), Xingqi Luo (Xi'an University of Technology, China), Zhihua Li (Xi'an University of Technology, China)

[IAHR2018-385](#) **“Unusual Pressure Rise during the Load Rejection at a Deriaz Turbine”**, Hiroaki Kikuta (Voith Fuji Hydro K.K., Japan), Kai Shimokawa (Voith Fuji Hydro K.K., Japan), Kengo Izutsu (Voith Fuji Hydro K.K., Japan), Tadashi Tsukamoto (Voith Fuji Hydro K.K., Japan), Shogo Nakamura (Voith Fuji Hydro K.K., Japan)

[IAHR2018-388](#) **“A Runner Modernization in a Deriaz Turbine Hydropower Station”**, Hiroaki Kikuta (Voith Fuji Hydro K.K., Japan), Ryoji Suzuki (Voith Fuji Hydro K.K., Japan), Shogo Nakamura (Voith Fuji Hydro K.K., Japan), Danijel Anciger (Voith Hydro Holding GmbH & Co. KG, Germany)

[IAHR2018-390](#) **“Design optimization of medium specific speed Francis turbines with unshrouded runners”**, Wataru Takahashi (WASEDA University, Japan), Masafumi Shinji (WASEDA University, Japan), Zhihao Liu (WASEDA University, Japan), Kazuyoshi Miyagawa (WASEDA University, Japan), Yoshiichirou Hayashi (J-Power Co., Ltd., Japan)

[IAHR2018-394](#) **“Fluid Exiting Force due to Flutter and Rotor, Stator Interactions of Axial Flow Turbines”**, Kazushi Ajiro (WASEDA University, Japan), Kunimasa Matsuda (WASEDA University, Japan), Kaoruko Onishi (WASEDA University, Japan), Kazuyoshi Miyagawa (WASEDA University, Japan)