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Hydraulic and Transient Performances of Pumped-Storage Units

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Pumped-storage units have gradually become the focus in the hydropower field owing to their importance to sustainable development and the utilization of clean and renewable energy. As the most complex variety of hydraulic machinery, reversible pumped-storage units display significant hydraulic instability and transient characteristics, which has attracted significant interest in the hydropower field. This Special Issue will cover a wide range of disciplines as follows:

- Hydraulic stability of pumped-storage unit including hump, S-shape characteristic and pressure fluctuations etc.;
- Transient characteristics of pumped-storage unit using numerical and experimental methods;
- Hydraulic loss and energy conversion mechanism of pumped-storage unit;
- Water hammer and water column separation in pumped-storage hydraulic system;
- Flow characteristics and control of pumped-storage unit using numerical and experimental methods;
- Flow-induced vibrations of pumped-storage unit using numerical and experimental methods[...]

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Special Issue



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