



## MEMBER PROFILE

	<b>Associate Professor Yi Cai</b>
	Country: <b>China</b>
	Affiliation: <b>Tongji University - Hydraulic Engineering</b>

<b>Contact Details</b>	
E-Mail Address:	<a href="mailto:caiyi@tongji.edu.cn">caiyi@tongji.edu.cn</a>
Website	<a href="http://hydraulic.tongji.edu.cn/index.php/caiyi">http://hydraulic.tongji.edu.cn/index.php/caiyi</a>
Tel nr.	0086-21-65982531
Fax nr.	0086-21-65989220
Physical address	1239 Siping Road, Yangpu District, Shanghai, P. R. China
Postal address	1239 Siping Road, Yangpu District, Shanghai, P. R. China
Skype name	-

<b>Study areas</b>	
Countries / Regions	Northwest China, Southwest China, Eastern China

<b>Topics of last three projects</b>	
1	Systematic behaviour and regulation of hydrological processes in Heihe River basin.
2	Key Technologies of reservoir operation for prevention and control of water pollution in Lijiang River.
3	Flood risk map in Taihu River Basin.

<b><u>Topics of last 10 publications</u></b>		<b><u>Publication links</u></b>
1	Improvement of hydrological model calibration by selecting multiple parameter ranges.	
2	Stream Flow Modelling for a Karst Basin Using Coupled Hydrological-Hydrodynamic Models: Case Study of Lijiang River, China.	
3	Spatial variations of river-groundwater interactions from upstream mountain to midstream oasis and downstream desert in Heihe River basin, China.	
4	Neural network modelling of flow in Yinluoxia Station based on flow in Zhamashike station in Heihe River, China.	
5	Numerical investigation of the river-groundwater interaction characteristics in the downstream desert of the Heihe River, China.	
6	Effect of substitute water project on tempo-spatial distribution of groundwater withdrawals in Chikugo-Saga plain, Japan.	
7	Effects of Changing Climate on Glacier Shrinkage and River Flow in the Upper Heihe River Basin, China.	
8	Effect of precipitation timescale selection on tempo-spatial assessment of paddy water demand in Chikugo-Saga plain, Japan.	
9	Investigation on the construction of flood insurance model in China.	
10	Numerical analysis of groundwater flow in Chikugo-Saga plain, Japan by using GIS and Modflow.	

## Research interests in water

<b>Climate &amp; Water</b>	Water in arid areas	Arctic water	Water cycle	Atmospheric water	Glaciers & Cryosphere					
<b>Hydrological extreme events</b>	Floods	Droughts	Ice phenomena							
<b>Water flow</b>	Catchment processes	Run-off generation	Groundwater-Surface water interactions	Hyporheic processes	Interstitial water	Porewater	Alluvial water			
<b>Surface water</b>	Limnology	Fluvial dynamics	Continental scale processes	Dams / Reservoirs	Sediments	Rivers	Floodplains			
<b>Ground water</b>	Soil water	Karst water	Hydrogeology	Recharge						
<b>Marine Environment</b>	Coastal waters	Estuarian waters								
<b>Aquatic habitats/ Ecosystems</b>	Wetlands	Lakes	Peatlands	Rivers						
<b>Water availability</b>	Water utility	Water storage	Dams / Reservoirs	Water scarcity	Supply & Distribution	Water allocation	Water restrictions			
<b>Modelling and GIS</b>	Hydro GIS	Groundwater modelling	Surface water modelling	Remote sensing						
<b>Water quality</b>	Pollution	Purification	Hydrochemistry	Treatment	Desalination	Waste water	Sewage			
<b>Water &amp; Health</b>	Water & Sanitation	Water & Food	Waterborne diseases	Drinking water	Water purification					
<b>Water &amp; Energy</b>	Water-Energy nexus	Water for energy	Energy for water	Water, Food & Energy						
<b>Water management/ policy</b>	Integrated Catchment management	Integrated water resource management	Water loss	Reticulation & Supply	Transboundary water					
<b>Water use</b>	Urban	Agricultural	Mine water	Industrial	Grey water	Green water	Blue water	Return water	Water sustainability	Competing water use
<b>Water Law &amp; Economics</b>	Water trade	Virtual water	Privatisation	Water as public good	Right to water	Bills & Laws	Affordability			
<b>Socio-political aspects</b>	Water history	Water wars	Water & Poverty	Access to water						