

# Overview of Hydrology Research Groups In THU Apetizer

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#### Outline

- 1 HydroYang
- 2 HydroSky
- 3 UrbanNi
- 4 Hu & Tian
- 5 Wang & Zhao
- **6** ETCong

## HydroYang

- Faculty
- Projects
  - Flux Observation Across Northern China
  - Coupling CLM with Distributed Hydrologic Model
  - Mechanism & Application of Water-Heat Correlation Pattern
  - Ecohydrology
  - Others

http://www.hydroyang.com





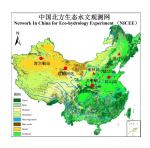


Dawen Yang Professor

Hanbo Yang Associate Professor

Huimin Lei Lecturer

#### Flux Observation Across Northern China



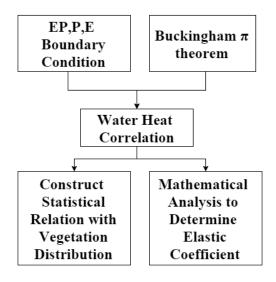
- Precipitation
  - RADAR
- Evapotranspiration
  - Eddy Covariance (EC)
  - Large Aperture Scintillometers (LAS)
  - Soil Respirator
- Ecological Terms
  - LI-2000 (NDVI, LAI)
- Common Meteorological & Pedological & Hydrological & Ecological Observers

# CLM 4.5 (NCAR) + GBHM (Dawen Yang)

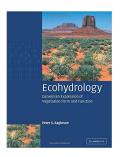
CLM Version	Hydrological Section	
CLM 3.5	TOPMODEL	
CLM 4.5	TOPMODEL & VIC (Optional)	
CLM 5	GBHM <sup>1</sup> ?	

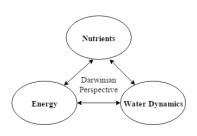
<sup>&</sup>lt;sup>1</sup>Geomorphology Based Hydrological Model

### Mechanism & Application of Water-Heat Correlation Pattern



## Ecohydrology





- How are the physical characteristics of vegetations related to the climates and soils ?
- What is the maximum biological productivity to be expected in a given climate and soil ?

# Others

Project	Principal
Hydrologic & Land Surface Modelling in Upper Heihe River Basin	Yue Qin
Data Assimilation	He Chen
Information Theory Applied in Geo Science	Wei Gong & Grey Nearing
Drought Detection	Kai Xu

## HydroSky

- Faculty
- Projects
  - Global Flood Monitoring System
  - GRACE Satellite-based Water Change estimation
  - Hydrologic Extremes

http://hydrosky.org



Yang Hong Professor



Di Long Distinguished Research Fellow

# Global Flood Monitoring System

Satellite Based	RADAR Based	Gauge Based
TRMM	Q2	MESONET
PERSIANN	S-band C-band	GPCC
_GPCP/CMAP	Phased Array Radar	CPC Daily Gauge

# **GRACE**

#### UrbanNi

- Faculty
- Projects
  - Urban Hydrology
  - Weather Climate Analysis & Forecast Based On WRF
  - Mechanism in Hydrometeorology
  - RADAR Precipitation Observation
  - International Riverbasin Management

http://www.urbanmetu.org/







Guangheng Ni Professor

Tongtiegang Zhao Lecturer

Ting Sun Post Doctor

#### Hu & Tian

- Faculty
- Projects
  - Experimental Basin
  - Hydrological Simulation
  - Social Hydrology

http://www.thuwater.org/







Heping Hu Professor

Fuqiang Tian Associate Professor

Hongchang Hu Lecturer

# Experimental Basin

# **THREW**

# **THREW**

# Wang & Zhao

- Faculty
- Projects
  - Water Resources Management in Drought Area
  - Reservoir Operation



Zhongjing Wang Professor



Jiangshi Zhao Associate Professor

# Water Resources Management in Drought Area

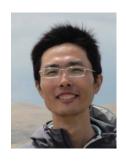
## **ETCong**

- Faculty
- Projects
  - Flux Observation Across Northern China

http://www.etcong.com/



Zhentao Cong Associate Professor



Danwu Zhang Post Doctor