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# **International Workshop on Interdecadal Variability of the Global Monsoons**

10-12 September, 2012

Nanjing, China

**Venue:** Conference Room at the 1st floor of Meteorology Building, NUIST

**会场：**南京信息工程大学气象楼一楼报告厅

# AGENDA

Time	Location	Events	Remark
<i>Sunday, 9 September, 2012</i>			
10:00—21:00	Venice Hotel &NanQi Hotel	Registration	
18:00	Venice Hotel &NanQi Hotel	Dinner	
<i>Monday, 10 September, 2012</i>			
07:00—07:45	Venice Hotel &NanQi Hotel	Breakfast	
07:45	Gate of Venice Hotel	Shuttle to NUIST	
08:00—08:30	Conference Room	Registration for local Participants	
08:30—08:50	Conference Room	Opening	(1) NUIST (2) AAMP
08:50—09:00	South Gate of MeteorologyBuilding	Group Photo	
09:00—10:30	Conference Room	Invited talks	Session 1
10:30—11:30	North gate of Conference Room	Poster session and morning break	
11:30—12:30	Conference Room	Discussion	Session 1
12:30—14:00	NanQi Hotel	Buffet lunch	
14:00—14:30	Conference Room	Poster introductions	
14:30—15:30	Conference Room	Invited talks	Session 2
15:30—16:30	North gate of Conference Room	Poster session and afternoon break	
16:30—17:30	Conference Room	Discussion	Session 2
17:30—18:00	Conference Room	Invited talk	Session 2
18:00—19:30	NanQi Hotel	Welcome Reception	
19:30	Gate of NanQi Hotel	Shuttle to Venice Hotel	
<i>Tuesday, 11 September, 2012</i>			
07:00—08:15	Venice Hotel &NanQi Hotel	Breakfast	
08:15	Gate of Venice Hotel	Shuttle to NUIST	
09:00—11:00	Conference Room	Invited talks	Session 3
11:00—12:00	Conference Room	Poster session and morning break	
12:00—13:00	Conference Room	Discussion	Session 3

<b>13:00—14:00</b>	NanQi Hotel	Buffet lunch	
<b>14:00—16:00</b>	Conference Room	Invited talks	Session 4
<b>16:00—17:00</b>	North gate of Conference Room	Poster session and afternoon break	
<b>17:00—18:00</b>	Conference Room	Discussion	Session 4
<b>18:00—19:00</b>	NanQi Hotel	Buffet dinner	
<b>19:00</b>	Gate of NanQi Hotel	Shuttle to Venice Hotel	
<b><i>Wednesday, 12 September, 2012</i></b>			
<b>07:00—08:15</b>	Venice Hotel & NanQi Hotel	Breakfast	
<b>08:15</b>	Gate of Venice Hotel	Shuttle to NUIST	
<b>09:00—10:30</b>	Conference Room	Invited talks	Session 5
<b>10:30—11:30</b>	North gate of Conference Room	Poster session and morning break	
<b>11:30—12:30</b>	Conference Room	Discussion	Session 5
<b>12:30—13:00</b>	Conference Room	Workshop Summary	
<b>13:00—14:00</b>	NanQi Hotel	Buffet lunch	
<b>14:00</b>	Gate of NanQi Hotel	Shuttle to Venice Hotel	

**Venue:** Conference Room at the 1st floor of Meteorology Building, NUIST

**Poster Display Place:** North gate of Conference Room, NUIST

**International workshop on interdecadal variability of the global monsoons**

**NUIST, Nanjing, China, 10-12 September 2012**

**CLIVAR AAMP (Prof. Bin Wang, Dr Andy Turner et al.) & NUIST (Prof. Jinzhong Min, Dr Weiyu Pan & Dr Gang Zeng)**

**Notes:**

- Early-career international/local scientists to be appointed (before workshop) as rapporteurs for each session (different for each).
- Pairs of invited/attending scientists to be appointed in advance to chair sessions and lead discussions. Discussion points are not exhaustive.
- Posters on display for the whole conference. Poster authors on days 1 and 2 can attend their posters for both session of that day if they wish.

**Day 1 (Monday 10 September): Review the present observational evidence of monsoon interdecadal variability**

**8:30-9:00 Registration / local host and workshop introduction / notify rapporteurs**

**Session 1: Monsoon decadal variability in the modern observational era<sup>1</sup>.**

**9:00-10:30 (3x30 minute invited talks, including questions; session timekeeper Nicholas Jourdain)**

Bin WANG: What drives Decadal variability of the global monsoon?

H ANNAMALAI: Drivers of interdecadal variability of the Asian Summer Monsoon

Zhaobo SUN: Interdecadal Variation Processes of East Asia Summer Monsoon in the 1970's and their relation to the AO

**10:30-11:30 (poster session and morning break)**

Posters on topics discussing:

- Measures of the global/hemispheric monsoon and its variability
- Observed modulation of the regional monsoons and their teleconnections

**11:30-12:30 Discussion: observed decadal variability of the monsoon (panel discussion chaired by Ken Sperber with panelists Bin Wang, H Annamalai and Zhaobo Sun)**

- Are there coherent interdecadal variation patterns on the global scale? How are interdecadal variations of the regional monsoons interrelated?

**12:30-14:00 Buffet lunch**

**Session 2: What do palaeo-modelling and observation tell us about monsoon interdecadal variability?**

**14:00-14:30 Poster introductions**

Each poster author to present a single slide introducing their poster for 1-2 minutes

**14:30-15:30 Invited talks (2x30 minutes, including questions; session timekeeper Tianjun Zhou)**

Ping ZHAO: Comparisons between modern East Asian monsoon variability and those found in cave records

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<sup>1</sup>Defined as the 19<sup>th</sup>-21<sup>st</sup> centuries.

from a multi-decadal variability associated with the Asian-Pacific Oscillation during the past 1000 years  
Dongxiao WANG: Decadal variability of the climate over the South China Sea inferred from measurement and proxy data

**15:30-16:30 Poster session and afternoon break**

Posters on topics discussing:

- Palaeo-monsoon co-variability at the global and regional level.
- Comparison between palaeo-proxy and observational data of monsoon interdecadal variability.
- Monsoon tipping points in the proxy record or model data.

**16:30-17:30 Discussion: what can palaeo-study teach us about the global monsoons? (panel discussion led by Andy Turner with panelists Ping Zhao, Dongxiao Wang, Tianjun Zhou and Akio Kitoh)**

- Do we under-utilize palaeo-study in our understanding of the present monsoon variability and future change?
- How can we use evidence of palaeo-monsoon variations on multi-decadal timescales to constrain monsoon processes in present day simulations?
- Why are the communities distinct and how can there be better interaction between the communities?

**Sub-session: our current skill at monsoon modelling**

**17:30-18:00 (invited talk 1x30 minutes, including questions)**

Ken SPERBER: quality of monsoon simulation in the CMIP5 and CMIP3 integrations

**18:00 Ice-breaker and evening reception with conference dinner**

**Day 2 (Tuesday 11 September): Connection between interdecadal monsoon variations and other major modes of interdecadal variability (such as PDO, IPO, or AMO) and the effects of climate change**

**Session 3: Interconnections between the monsoon regions and decadal variability in the context of climate change.**

**9:00-11:00 Invited talks (4x30 minutes, including questions; session timekeeper Bin Wang)**

Nagaraju CHILUKOTI / K ASHOK: Decadal changes in the relationship between the Indian and Australian summer monsoons

Yihui DING: Observed Inter-decadal weakening of the Asian summer monsoon and different response of South and East Asian monsoons during a warming climate scenario

Xiu-Qun YANG: Decadal change in East Asian monsoon climate system: Natural variability versus anthropogenic forcing

Bodo AHRENS: Variability, climate change or drift in the Indian summer monsoon as simulated by the regional climate model COSMO-CLM

**11:00-12:00 Poster session and morning break**

Posters on topics discussing:

- Co-variability of the regional and global monsoons on decadal timescales.

**12:00-13:00 Discussion: Interconnection and co-variability of the monsoons (panel discussion led by Bin Wang with panelists, Yihui Ding, Xiu-Qun Yang and Bodo Ahrens)**

- Do we have the right observational systems to make inter-monsoon comparisons?
- Is the level of data sharing appropriate?
- Have we learned enough about the processes involved in decadal variability to be able to put anthropogenic climate change of the monsoons in context?
- How can we use palaeo-climate simulations to guide us as to the range of future change?

**13:00-14:00 Buffet lunch**

**Session 4: Mechanisms for decadal modulation of the monsoon.**

**14:00-16:00 Invited talks (4x30 minutes, including questions; session timekeeper Andy Turner)**

Buwen DONG: Atlantic Ocean influence on the interdecadal Asian Summer Monsoon and its interaction with the El Niño-Southern Oscillation

Jianping LI: Decadal change in annular modes and their linkage with East Asian monsoon

Zhiwei WU: Modulation of the Tibetan Plateau snow cover on the ENSO teleconnections: From the East Asian summer monsoon perspective

Jacob SCHEWE: A critical humidity threshold for monsoon transitions

**16:00-17:00 Poster session and afternoon break**

Posters on topics discussing:

- Connections between drivers and global & regional monsoons
- Interaction between drivers or their associated modes of monsoon variability and anthropogenic warming

**17:00-18:00 Discussion: mechanisms and model representation of interdecadal modes (panel discussion led by Jianping Li with panelists Buwen Dong, Zhiwei Wu and Jacob Schewe)**

- Proposals and ideas for coordinated multi-model experiments to test mechanisms of drivers of the monsoons and modulators of monsoon-ENSO teleconnections.
- Do our models represent AMO/IPO well enough that we can learn anything about their relationships with the monsoon?
  - Do we have enough observed data to test our models?
  - Do we know enough about the processes involved in these phenomena?

**18:00 Buffet dinner**

**Day 3 (Wednesday 12 September): Decadal monsoon prediction**

**Session 5: Using our knowledge of decadal variability to further monsoon prediction. (Session chairs and discussion leaders TBA)**

**9:00-10:30 Invited talks (3x30 minutes, including questions; session timekeeper Matthieu Lengaigne)**

Noel KEENLYSIDE: Near-term climate prediction: new opportunities and challenges

Harry HENDON: Decadal variation of ENSO predictability

Kyung-Ja HA: Interdecadal Change in the Relationship between ENSO and the Intraseasonal Oscillation in East Asia

**10:30-11:30 Poster session and morning break**

**11:30-12:30 Discussion: barriers to better dynamical prediction and the impact of ENSO diversity (panel discussion led by Harry Hendon with panelists Noel Keenlyside, Kyung-Ja Ha and Matthieu Lengaigne)**

- What are the barriers to better dynamical prediction of monsoon decadal variability?
- What is the status of dynamical seasonal forecasting in the context of different ENSO flavours and background state conditions?
  - The IOD or Modoki-mode ENSO.
  - Role of the mean state.

**12:30-13:00 Synthesis of rapporteurs' comments and meeting wrap-up**

- Tentative outcomes
- Actions going forward

**13:00 Buffet lunch**



## LIST OF POSTERS

- S3**Hua CHEN: Decadal Global Monsoon in CCSM3
- S3**Miao-ni GAO: Decadal change in relationship between spring Arctic Oscillation and East Asian summer monsoon in the late 1990s
- S4** Jinhai HE: The effect of interdecadal variation of East Asian monsoon leading mode in the past 30 years on South China precipitation and its possible causes
- S1** Deepesh JAIN: Interdecadal variability of the Indian monsoon in an atmospheric general circulation model
- S4** Zhihong JIANG: How do coldwaves in China respond to a warming climate?
- S1** Nicolas JOURDAIN: Variability of the Tropospheric Biennial Oscillation
- S4** Hisayuki KUBOTA: Interdecadal variability of western North Pacific summer monsoon through the Pacific-Japan (PJ) pattern
- S5** K Niranjana KUMAR: On the interdecadal variation of intensity of tropical cyclones in the Arabian Sea: role of ocean heat content
- S5** Matthieu LENGAIGNE: Influence of Indian Ocean dipole and Pacific recharge on next year's El Niño: interdecadal robustness
- S3** Aurel MOISE: Decadal variability of the Australian monsoon and future projections as represented in the CMIP5 models
- S3** Yuwei LIU: Evidence of coordinated weakening of the Asian and West African monsoons and links to North Atlantic cooling
- S3** Chu-han LU: Interdecadal linkages between Pacific decadal oscillation (PDO) and interhemispheric air mass oscillation (IHO) and their possible connection with the East Asian monsoon
- S1** Elinor MARTIN: Multi-decadal variability of West African rainfall in observations and CMIP5 simulations
- S2** Yu-jing QIN: The South Asia high reconstruction process from April to May and its relationship with convective activities over the Indo-China peninsula
- S2** Zhengguo SHI: Orbital-scale Pacific/East Asia teleconnection and anti-phased variations of summer precipitation
- S1** Che SUN: Interdecadal variation of surface winds over ChinaMarginalSeas
- S5** Ruifang WANG: Typhoon track changes associated with global warming
- S1** Baoqiang XIANG: Decadal Changes of Asian Summer Monsoon Onset
- S3** Xiao XIE: Analysis on the upper-air temperature over Eastern China under the background of global warming
- S5** Junpeng YUAN: Influence of Indian Ocean dipole mode on North Indian Ocean tropical cyclones
- S4** Wen ZHOU: Possible connection between Pacific Oceanic interdecadal pathway and East Asian Winter monsoon