

## CURRICULUM VITAE

YANG HONG, Associate Professor  
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Carson Engineering Center, University of Oklahoma, Norman, OK 73019 ([www.cees.ou.edu](http://www.cees.ou.edu))

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### EDUCATIONAL BACKGROUND

**2003 PhD:** Dept. of Hydrology and Water Resources, College of Engineering, University of Arizona, Tucson, AZ  
**Major:** Hydrology and Water Resources  
**Minor:** Satellite Remote Sensing and Spatial Analysis/GIS  
**Dissertation:** Precipitation Estimation from Remotely Sensed Information Using Artificial Neural Networks--Cloud Classification System, 2003, In the Library of University of Arizona, Tucson, AZ, USA, 85721.

**99/96 M.S./B.S.:** Peking (Beijing) University (Honor Graduate), Beijing, China  
**Major Field of Study:** Geosciences/Environmental Sciences  
**Thesis:** Environmental Impact Assessment and Integrated Decision-making Support System for City of Benxi, Northeastern China, 1999, in the Library of Beijing University, Beijing, China, 100871.

### RESEARCH INTERESTS

Remote Sensing Precipitation (radar, satellite, multi-sensor, multi-platform); Hydrological System Analysis; Surface Water; Hydrometeorology; Rainfall-runoff modeling and Flood Forecasting; Natural Hazard Prediction and Disaster Mitigation; Global Change and Hydrological Cycle; Artificial Intelligence; GIS/Spatial Analysis; Digital Image Analysis; Water Resources Planning and Sustainable Development

### PUBLICATION SUMMARY

40+ referred journal papers; 6 book chapters; 10+ peer-reviewed proceedings; 30+ conference abstracts;  
3 technique reports and software packages; 1 Data CD release; 5 satellite-based real-time operational systems;

### PROFESSIONAL EXPERIENCE

2007~ **Associate Professor**, School of Civil Engineering Environmental Sciences, the University of Oklahoma  
Also affiliated with Center for Natural Hazards and Disaster Research at National Weather Center  
2007~ **Visiting Scientist**, NASA Goddard Space Flight Center  
2005~ **Research Scientist**, GEST Center at NASA Goddard Space Flight Center, Bldg 33, Rm C424  
Research Faculty Member in University of Maryland, Baltimore County, MD  
2004 **Post-Doctoral Scholar**, Center for Hydrometeorology and Remote Sensing, Dept of Civil and Environmental Engineering, University of California, Irvine, California 92612  
03-04 **Post-doctoral Researcher**, NSF Science and Technology Center for the Sustainability of semi-Arid Hydrology and Riparian Areas (SAHRA), Tucson, Arizona  
99-03 **Graduate Research Associate**, Dept. of Hydrology and Water Resources, University of Arizona  
98-99 **East Asia Regional Coordinator** (half-time), UNEP funded Global Environmental Outlook Project, National Environmental Protection Administration, Beijing, China

### PUBLIC SERVICE and PROFESSIONAL SOCIETY MEMBERSHIP

**Editor**, International Journal of Remote Sensing, 2007-2013; <http://www.tandf.co.uk/journals/titles/01431161.asp>  
**Chair**, AGU Technique Committee on Precipitation, 07/2008~06/2010 ([www.agu.org](http://www.agu.org))  
**Corresponding Guest Editor** for Journal of Natural Hazards (Springer) Special Issue  
**Proposal Reviewer** for NASA/ROSES/PMM, National Science Foundation, European Space Agency  
**Board Member** (Alternative Representative), International Consortium on Landslides (ICL)  
**Member**, American Meteorological Society, USA, 1999~present

Member, [American Geophysical Union](#), USA, 1998~ present

Member, [International Association of Hydrological Science](#), UK, 2002~ present

Member, European Geophysical Union, (<http://www.copernicus.org/EGU/EGU.html>), 2006~

### SCIENTIFIC CONFERENCE SESSION CONVENER

**Co-chair:** 2008 AGU Fall, Spatial and Temporal Trends in Hydrometeorological Records as Indicators of Climate Variability and Change, SF, CA

**Co-chair:** 2008 AGU Fall, Remote Sensing and Modeling of Surface Hydrological Processes, December, SF, CA

**Co-chair:** 2007 AGU Fall, Application of Remote Sensing Precipitation, December, SF, CA

**Co-chair:** 2007 2<sup>nd</sup> Int. Symposium on Flood Forecasting with GIS/RS, Sept., Three Gorges Dam, China

**Co-chair:** 2006 AGU Fall, Hydrometeorologic Extreme Events Session, Dec 11-15, SF, CA.

**Co-chair:** 2006 Western Pacific Geophysical Meeting, Remote Sensing/GIS/Water Resources, July, Beijing, China

**Co-chair:** 2006 AGU Spring, Use of Satellite Data in Flood and Landslide Analysis, Baltimore, MD

**Co-chair:** 2005 AGU Fall, Remote Sensing Precipitation Session, Dec., SF, CA

### Engaged Collaborative Researches

(Please click on the web-links for the latest development)

1. Global Fine-Resolution (**4km and 30-minute**) Real-time Multi-Satellite Multi-sensors Rainfall Estimation: <http://hydis8.eng.uci.edu/GCCS/>;

**Reference,** Hong et al., 2005, Water Resources Research; **Credit:** UC Irvine

2. NASA TRMM-based Global Near-Real-time Flood Potential Project:

[http://trmm.gsfc.nasa.gov/publications\\_dir/potential\\_flood\\_hydro.html](http://trmm.gsfc.nasa.gov/publications_dir/potential_flood_hydro.html);

**Reference:** Hong et al. 2007, WRR; IJRS; NHAD; **Credit:** NASA Goddard

3. NASA Global Landslide Alert Project:

[http://trmm.gsfc.nasa.gov/publications\\_dir/potential\\_landslide.html](http://trmm.gsfc.nasa.gov/publications_dir/potential_landslide.html)

**Reference:** Hong et al., 2006 GRL; IEEE TGARS; Hong et al., 2007, EOS; **Credit:** NASA Goddard

4. High Resolution (**4km and 30-minute**) Satellite-Precipitation Estimation Using PERSIANN-CCS North America Real-time Satellite-rainfall Estimation: <http://hydis8.eng.uci.edu/CCS/>;

**Reference,** Hong et al., 2004, J. Applied Meteorology; **Credit:** UC Irvine

6. SERVIR-Africa: Regional visualization and monitoring systems for Africa that integrates satellite and other geospatial data for improved scientific knowledge and decision making by managers, researchers, students, and the general public: [http://aspires.gsfc.nasa.gov/SERVIR\\_Africa/test.html](http://aspires.gsfc.nasa.gov/SERVIR_Africa/test.html); Funding Agency: NASA/USAID

7. Coastal and Inland Flood Observation and Warming: <http://www.nssl.noaa.gov/projects/ciflow/>

8. High Resolution Multi-sensor (**1km and 5-minute**) Radar-Gauge-Satellite Precipitation Estimates <http://nmq.ou.edu/>; **Credit:** NOAA/NSSL/OU

### RESEARCH HIGHLIGHTS AND PRESS BRIEFING

2007 NASA Science Mission Directorate SARA: Hurricane-Flood-Landslide Continuum Analysis

2007 NASA Earth Observatory Featured Story: <http://earthobservatory.nasa.gov/Study/LandslideWarning/printall.php>

2007 EGU, Vienna, Austria, Natural Hazard Session selection for News/Press Briefing

2007 NASA DAAC Featured Article: [http://nasadaacs.eos.nasa.gov/articles/2007/2007\\_landslides.html](http://nasadaacs.eos.nasa.gov/articles/2007/2007_landslides.html)

2006 NASA News Briefing ([http://www.nasa.gov/home/hqnews/2006/may/HQ\\_06231\\_AGU\\_Floods.html](http://www.nasa.gov/home/hqnews/2006/may/HQ_06231_AGU_Floods.html))

2006 AGU Joint Assembly (<http://earthobservatory.nasa.gov/Newsroom/NasaNews/2006/2006052422323.html>)

### MAJOR HONORS AND AWARDS

- NASA Group Achievement Award to Goddard Applied Sciences Team: “*For significant achievements in systematically promoting and accelerating the use of NASA scientific research results for societal benefits*”, signed and sealed by NASA Administrator on May 8<sup>th</sup>, 2008
- NASA Goddard Laboratory for Atmospheres Annual Research Science Highlights Selection, 2007
- Goddard Earth Science and Technology Center Faculty Annual report Featured Article Cover, 2006
- Faculty Career Development Award for Researchers, by University of California Irvine Academic Senate (05)
- Outstanding Public Service Award, Chinese Consulate in General at Los Angeles (2005)
- The Mayor Award for International Student, Mayor Office, City of Tucson, Arizona (02)
- Academic Outstanding Honor for Top 10 Graduate Students, (Xueshu Shi Jie), PKU, China (99)
- Best Paper Award, China’s Environmental and Science Publishing House, China (99)
- IET Fellowship for Graduate Student, Department of Education, China State Council, China (98)

- China Challenge Cup, Young Scientist Award, Peking University, China (97)
- "Baichuan" Award for Undergraduate at School of Earth Sciences, PKU, China (96)
- Leadership Award for Students Associations, PKU, China (95)

### Research Project Involved (total 3 million as Co-I, Co-PI, or PI; Money managed \$600K)

- NASA Earth Science Fellowship, PI
- Improving NASA Global Hazard System and Implementing SERVIR-Africa, PI
- OK/WRRI Evaluation of Water Use Monitoring by Remote Sensing ET Estimation Methods, PI
- NOAA/OAR/NSSL: Calibrating HL-NDHM to the NOAA Hydrometeorological Testbed, Co-PI
- NASA ROSES Decision Proposal, Global Hazard (Flood-Landslide) Decision-Support System (Co-PI)
- NOAA/OAR/NSSL Next Generation QPE: Toward a Multi-Sensor Approach for Integration of Radar, Satellite, and Surface Observations to Produce Very High-resolution Precipitation Data, 01/08--12/09 (PI)
- NASA Global Hazard System Evaluation (PI)
- NASA Applied Sciences, RAPID PROTOTYPING CAPABILITY, Flood and Landslide Early Warning Products for USAID Disaster Management Requirements, 07-08 (Co-PI)
- NSF and NCAR Junior Faculty Forum Support, July 2007
- NASA Applied Sciences, 06-07 (Co-PI)
- NASA Applied Sciences, 05-06 (Co-I)
- NASA Energy and Water-Cycle Sponsored Research, the Challenges of Utilizing Satellite Precipitation Data for Hydrological Application, NN-H-04-Z-YS-005-N, 2005-2010 (Co-I)
- Faculty Career Development Award for Research Fellow, 2005, Univ. of California Academic Senate (PI)

### INVITED SPEAKER OR GUEST LECTURER

Dept of Civil and Environmental Engineering, Univ. of Connecticut, Nov 2<sup>nd</sup>, 2007  
 NOAA/NWS invited talk for Director General of Morocco/Algerian/Tunisian National Meteorological Office, 7/20/07  
 NASA GSFC Hydrologic Sciences Branch Land Information System Seminar, May 2<sup>nd</sup>, 2007  
 Dept of Hydrology and Water Resources, University of Arizona, Apr 25, 2007  
 University of Maryland, College Park, Nov 30, 2006 (A Space-borne Global Flood Alert System)  
 Center for Meteorological Satellite, China National Administration of Meteorology, Aug 2, Beijing, 2006  
 Center for Remote Sensing and GIS, Beijing University, Beijing, China, July 27, 2006  
 Chinese Academy of Science, State Key Lab of Geography and Remoter Sensing, Beijing, China, July 28, 2006  
 NASA JPL, "Global Precipitation Data Development, Validation, and Application", August 2005  
 Dept. of Civil and Environmental Engineering, University of Hong Kong, Hong Kong, China, Nov. 17, 2004

### PUBLICATION LIST

#### A. Selected Referred Journal Articles (\*Corresponding Author)

Research Area: **Spatial Analysis/Satellite Remote Sensing/Artificial Intelligence**

1. **Hong, Y\***, K.L. Hsu, X. Gao, and S. Sorooshian, 2004, Precipitation Estimation from Remotely Sensed Imagery Using Artificial Neural Network - Cloud Classification System (PERSIANN-CCS), Journal of Applied Meteorology, Vol. 43, No. 12, pp. 1834–1853
2. **Hong, Y\***, K.L. Hsu, S. Sorooshian, and X. Gao (2005), Self-organizing nonlinear output (SONO): A neural network suitable for cloud patch-based rainfall estimation from satellite imagery at small scales, Water Resources Research, 41, W03008, doi:10.1029/2004WR003142.
3. **Hong, Y\***, Y. Chiang (**student**), Y. Liu (**student**), K.L. Hsu, S. Sorooshian, 2006, Satellite-based Precipitation Estimation using Watershed Segmentation and Growing Hierarchical Self-Organizing Feature Mapping Techniques, International Journal of Remote Sensing, 27(23), p5165 – 5184, DOI: 10.1080/01431160600763428
4. **Hong, Y\*** and R.F. Adler, 2008, Estimation of Global NRCS-CN (Natural Resource Conservation Service Curve Numbers) for Global Flood Nowcasting, International Journal of Remote Sensing, (in Press)
5. Huffman, G.J., R.F. Adler, D.T. Bolvin, G. Gu, E.J. Nelkin, K.P. Bowman, **Y. Hong**, E.F. Stocker, D.B. Wolff, 2007: The TRMM Multi-satellite Precipitation Analysis: Quasi-Global, Multi-Year, Combined-Sensor Precipitation Estimates at Fine Scale. Journal of Hydrometeorology, 8(1), 38-55

6. Hsu, K.L., **Y. Hong**, and S. Sorooshian, 2007: Rainfall Estimation using A Cloud Patch Classification Map, *Advances in Global Change Research*, Kluwer Publisher, p329-343
7. J. S. DENG, K. WANG, **Y. HONG**, G. J. QI, 2008, A methodology to monitor urban expansion and land use change using a time series of multi-sensor SPOT images (submitted)
8. J.S. DENG, K. WANG, **Y. HONG**: An integrated analysis of cropland loss trajectory and challenging impacts on sustainable development in Yangtze Delta, China (submitted)

Research Area: **Hydrometeorology Application of Remote Sensing Precipitation**

9. **Hong, Y\***, Hsu, Kuo-lin; Moradkhani, Hamid; Sorooshian, Soroosh, 2006: Uncertainty quantification of satellite precipitation estimation and Monte Carlo assessment of the error propagation into hydrologic response, *Water Resources Research*, Vol. 42, No. 8, W08421, 10.1029/2005WR004398
10. **Hong, Y\***, R. F. Adler, F. Hossain, S. Curtis, and G. J. Huffman (2007), A First Approach to Global Runoff Simulation using Satellite Rainfall Estimation, *Water Resources Research*, Vol. 43, No.8, W08502, doi: 10.1029/2006WR005739
11. **Hong, Y.\*** et al., 2008, Flood Prediction in the Future: Operational Web-based-GIS-Remote Sensing Watershed Modeling, *International Journal of Hydrological Sciences*, (submitted)
12. Moradkhani, Hamid; K. Hsu, **Y. Hong**, S. Sorooshian, 2006: Investigating the impact of remotely sensed precipitation and hydrologic model uncertainties on the ensemble streamflow forecasting, *Geophysical Research Letter*, Vol. 33, No. 12, L12107, 10.1029/2006GL026855
13. Hossain, F., **Y. Hong**, and A. Wolf, and, 2007: The Emerging Role of Satellite Rainfall Data in Improving the Hydrological Situation of Flood Monitoring in the Under-developed Regions of the World, *Journal of Natural Hazards*, 43(2), DOI: 10.1007/s11069-006-9094-x
14. Yen-Ming Chiang (**student**), Kuo-Lin Hsu, Fi-John Chang, **Y. Hong**, and Soroosh Sorooshian, 2007: Merging Multiple Precipitation Sources for Flash Flood Forecasting, *Journal of Hydrology*, **340**, 183–196, doi:10.1016/j.jhydrol.2007.04.007
15. Su, F.G., **Y. Hong**, and D. P. Lettenmaier, 2008, Evaluation of TRMM Multi-satellite Precipitation Analysis (TMPA) and its Utility in Hydrologic Prediction in La Plata Basin, *J. of Hydrometeorology*, 9(4), pp622-640; DOI: 10.1175/2007JHM944.1
16. Su, F., **Y. Hong**, D. P. Lettenmaier et al., 2008, Hydrological Evaluation of Three Real-time Satellite High-Resolution Precipitation Products at La Plata Basin (to be submitted)

Research Area: **Hydro-Climate Variability/Hydrometeorology/Land Surface Modeling**

17. **Hong, Y\***, K.L. Hsu, S. Sorooshian, and X. Gao (2005), Improved representation of diurnal variability of rainfall retrieved from the Tropical Rainfall Measurement Mission Microwave Imager adjusted Precipitation Estimation From Remotely Sensed Information Using Artificial Neural Networks (PERSIANN) system, *Journal of Geophysical Research-Atmospherics*, 110, D06102, doi:10.1029/2004JD005301.
18. **Hong, Y\***, D. Gochis, J.T. Chen, K.L. Hsu, and S. Sorooshian, 2007, Evaluation of Precipitation Estimation from Remote Sensed Information using Artificial Neural Network-Cloud Classification System (PERSIANN-CCS) Rainfall Measurement Using the NAME Event Rain Gauge Network, *Journal of Hydrometeorology*, **8(3)**, p469-482
19. **Hong, Y\*** and S.J. Luan, 1999: The current State of Global Environment and its Outlook, *Journal of Global Environment*, No. 3, 11-21.

20. Sorooshian, S, X. Gao, K.L. Hsu, R. A. Maddox, **Y. Hong**, H.V. Gupta, and B. Imam, 2002: Diurnal Variability of Tropical Rainfall Retrieved from Combined GOES and TRMM Satellite Information. Journal of Climate: Vol. 15, No. 9, pp. 983–1001.
21. Scott Curtis, Ahmed Salahuddin, Robert Adler, George Huffman, Guojun Gu, and **Yang Hong**, 2007, Precipitation Extremes Estimated by GPCP and TRMM: ENSO Relationships, GEWEX special issue of the Journal of Hydrometeorology, Volume 8, 678-689, DOI: 10.1175/JHM601.1
22. Steve Lyon, F. Dominguez, David Gochis, Nate Brunzell, Chris Castro, Fontini Chow, Daniel Fuka, **Yang Hong**, Paul Kucera, Steve Nesbitt, Ying Fan, Nadin Salzmann, Juerg Schmidli, Peter Snyder, Adriaan Teuling, Tracey Twine, Gyuwon Lee, Sam Levis, Jessica Lundquist, Guido Salvucci, Andrea Sealy, Todd Walter, 2008, COUPLING TERRESTRIAL AND ATMOSPHERIC WATER DYNAMICS TO IMPROVE PREDICTION IN A CHANGING ENVIRONMENT, Bulletin of American Meteorology Society (in press)
23. Wang, J., **Y. Hong**, L. Li, and Z. Hao, 2008, A Temporal Downscaling Method of Monthly Precipitation to Daily Series based on the Analysis of 730 Meteorological Stations' Gauged Rainfall Data in China, Advance in Water Research Sciences, (submitted)
24. **Hong, Y\*** et al.2008, Estimate Probability Distribution Function of Global Precipitation Climatology Project Monthly Rainfall, International Journal of Remote Sensing (submitted)
25. **Hong, Y\*** et al., 2008, Quasi-global Daily Precipitation Probability Distribution Function Derived from TRMM-based Multi-satellite Precipitation Analysis, Journal of Applied Meteorology and Climatology (Submitted)
26. **Hong, Y\*** et al. 2008, Climatology of Quasi-global Precipitation observed from TRMM-based Multi-satellite Precipitation Analysis, (submitted)
27. **Hong, Y.\*** et al. 2008, The World of Extreme Rainfall: Satellite Observation from Global Precipitation Climatology Project and Tropical Rainfall Measuring Mission, (submitted)

**Research Area: Natural Disaster Prediction/Mitigation/Satellite-based Real-time Alert System**

28. **Hong, Y\***, R.F. Adler, and G.J. Huffman, 2007, Satellite Remote Sensing for Landslide Monitoring on a Global Basis, American Geophysical Union EOS Featured Cover Article, 88(37), 357-358
29. **Hong, Y\***, Robert Adler, and George Huffman, 2006: Evaluation of the Potential of NASA Multi-satellite Precipitation Analysis in Global Landslide Hazard Assessment, Geophysical Research Letter, 33, L22402, doi:10.1029/2006GL028010
30. **Hong, Y\***, Robert Adler, George Huffman, and Andrew Negri, 2006: Use of Satellite Remote Sensing Data in mapping of global shallow landslides Susceptibility, Journal of Natural Hazards, 43(2), DOI: 10.1007/s11069-006-9104-z
31. **Hong, Y\***, R.F. Adler, G.J. Huffman, 2007: An Experimental Global Prediction System for Rainfall-triggered Landslides using Satellite Remote Sensing Information, IEEE Geoscience and Remote Sensing, Vol.45, No. 6, Remote Sensing and Disaster Special Issue invited paper, DOI: 10.1109/TGRS.2006.888436
32. **Hong, Y\***, R.F. Adler, A. Negri, and G.J. Huffman, 2007, Flood and Landslide Applications of Near Real-time Satellite Rainfall Estimation, Journal of Natural Hazards, 43(2), DOI: 10.1007/s11069-006-9106-x
33. **Hong, Y\*** and R.F. Adler, 2008: Towards an Early Warning System for Global Landslides Triggered by Rainfall and Earthquakes, International Journal of Remote Sensing, 29:16, 3713-3719; DOI: 10.1080/01431160701311242; URL: <http://dx.doi.org/10.1080/01431160701311242>
34. **Hong, Y\***, R. Adler, and J. Verdin, 2007, Using 21<sup>st</sup> Century Remote Sensing Technology for Natural Disaster Prediction and Mitigation: Emerging Frontier and Challenges, Journal of Natural Hazards, 43(2), DOI: 10.1007/s11069-007-9133-2

35. Bach D. (**student**), R.F. Adler, **Y. Hong**, 2007, Potential of rainfall products for use in landslide hazard assessment in the Caribbean Region, Global Energy Water Cycle Experiment (GEWEX) NEWS Letter, Vol. 7, No.3, p5-7
36. **Hong, Y\*** et al., 2008, PREDICTING LANDSLIDE SPATIOTEMPORAL DISTRIBUTION: INTEGRATING LANDSLIDE SUSCEPTIBILITY ZONING TECHNIQUES AND REAL-TIME SATELLITE RAINFALL, Special Issue of International Journal of Sediment Research (*in press*)
37. Bach, D.,R.Adler, and **Y. Hong**., 2008: Evaluation of NASA Global Landslide Monitoring System, *Natural Hazards and Earth System Sciences* (submitted)
38. Bach, Dalia, Stephanie Hill, Bob Adler, **Y. Hong**, 2008: Description of a global landslide inventory database, *Journal of the International Consortium on Landslides* (submitted)
39. Ren, Diandong, J.Wang, **Y.Hong**, Lance Leslie, and David Karoly, 2008, Wenchuan Earthquake 2008 and the Subsequent Mudslide-Caused Ecosystem Degradation, *Geophysical Research Letter* (submitted)
40. Li Li, **Y. Hong**, Jiahu Wang, Robert F. Adler, Frederick S. Policelli, Shahid Habib, Daniel Irwn, Tesfaye Korme, and Lawrence Okello, Capacity Building for Disaster Management in Vulnerable Regions of Africa: Evaluation of the Real-time TRMM-based Multi-satellite Precipitation Analysis for an Operational Flood Prediction System in Nzoia Basin, Lake Victoria, Africa, NHAD (submitted)
41. **Hong, Y\*** et al. 2008, A Framework for a Satellite-based Flood Prediction System, Bulletin of the American Meteorological Society (in preparation)
42. **Hong, Y\*** et al., 2008, The Status and Progress of Space-borne Flood Monitoring Systems, Water Resources Research, (to be submitted)

**Research Area: Water Resources Modeling and Management**

43. Lin Dou, Mingbin Huang, and **Y. Hong**, 2008: Statistical assessment of the impact of conservation measures on stream-flow responses in a watershed of the Loess Plateau, Yellow River Basin, China (accepted)
44. **Hong, Y\*** and Jing Cao, 2000, Integrated Urban Water Resources Assessment using Quantitative Index Approach, Journal of Shanghai Environmental Sciences, Vol. 19, No. 6, 269-272.
45. **Hong, Y\*** and S.J. Luan, 1999, Water Resources Demand Management in 21<sup>st</sup> Century, Journal of Global Environment, No. 1, 21-23.
46. **Hong, Y\***, 1999, China's Water Management and Planning: the Past, the Present, and the Future, Journal of Environment Protection, No. 4, 29-32
47. **Hong, Y\*** and S.J. Luan, 1998, China's Water Security in 21st Century, Journal of China Environmental Management, No.4, 3-8

**Research Area: Sustainable Development and Environmental System Analysis**

48. **Hong, Y\*** and S.J. Luan, 1999, Numerical Modeling of Kuznets's Relationship between Environmental Quality Change and Economic Growth, Journal of Shanghai Environmental Sciences, Vol. 18, No. 3, 112-115
49. **Hong, Y\*** and S.J. Luan, 1999, Public Participation for Comprehensive Environmental Impact Assessment in China, Journal of Chongqing Environmental Sciences, Vol. 21, No.1, 27-31.
50. **Hong, Y\*** and S.J. Luan, 1999, Environmental Impact Assessment in China: Key Elements and Procedures, Journal of Inner Mongolia Environmental Sciences, Vol. 11, No.1, 33-37.
51. **Hong, Y\***, 1998, Economical Analysis of Environmental Change along with Different Consumption Styles, Journal of Shanghai Environmental Sciences, Vol. 7, No. 11, 11-14

52. **Hong, Y\*** and W.H. Ye, 1998, Theoretical Analysis of Sustainable Environmental Carrying Capacity: Calibration and Application on Regional Environmental Planning, China Population, Resources and Environment, Vol. 8, No.3, 54-59
53. **Hong, Y\*** 1998, Transformation of the Natural Resource-based Economy Growth to Human Capital-based Sustainable Development, Journal of Future and Development, No. 2, 7-11

#### **B. Book and Book Chapter (\*Corresponding Author)**

6. Hong, Y\*, R.F. Adler, G.J. Huffman, Capacity Building for Disaster Prevention in Vulnerable Regions of the World: Development of a Prototype Global Flood/Landslide Prediction System, Book Chapter (in press)
5. Hsu, K-L. \*, **Y. Hong**, and S. Sorooshian, 2007, Rainfall Estimation using a Cloud Patch Classification Map, Measuring Precipitation from Space, Editors V. Levizzani, P. Bauer, F.J. Turk, EURAINSAT and the Future Series: Advances in Global Change Research, Vol. 28, 745p, ISBN: 978-1-4020-5834-9
4. Sorooshian, S\*, K-L. Hsu, B. Imam, **Y. Hong**, 2006, Global Precipitation Estimation from Satellite Imagery using Artificial Neural Networks, 2<sup>nd</sup> chapter in Hydrological modeling in arid and semi-arid areas, in press, published by UNESCO
3. **Hong, Y\***, K-L. Hsu, S. Sorooshian, X.Gao, B. Imam, 2004, Satellite-based High-resolution Precipitation Estimation and its Application to Hydrological Modeling and Flood Forecasting, Editors Y-B. Chen and Kaoru Takara, *book chapter* for International Symposium on Flood Forecasting and Management with GIS and Remote Sensing: A Contribution to EU Flood Prediction Project-FLOODRELIEF, 35-44
2. **Hong, Y\***, Environmental Impact Assessment in China, co-editor, *China Environmental Sciences Press*, Beijing, China
1. Zhang, S.\*, H. He, **Y. Hong**, and S. Luan\*, 1999: Sustainable Development in China: The Past, Present, and Future, *China Education Press*, Beijing, China

#### **C. Peer-reviewed Proceedings (selected)**

1. **Hong, Y\***, R.F. Adler, G.J. Huffman, and A. Negri, Towards an Early Warning System for Global Landslide Potential, First North American Landslide Conference, July, 2007, Vail, Colorado, USA
2. **Hong, Y\*** and R. F. Adler, Mapping Hotspots of Global Landslides, in Proceedings of Sustainable Development Through Global Earth Observations, 32<sup>th</sup> IEEE International Symposium on Remote Sensing of Environment, San Jose, Costa Rica, June 25-29, 2007
3. **Hong, Y\***, R. F. Adler, and G. J. Huffman, Global Flood Prediction, in Proceedings of Sustainable Development Through Global Earth Observations, 32<sup>th</sup> IEEE International Symposium on Remote Sensing of Environment, San Jose, Costa Rica, June 25-29, 2007
4. Adler, R.F., **Y. Hong\***, and G.J. Huffman, An Experimental Global Landslide Prediction System, International Panel on Landslide Risk Analysis and Sustainable Disaster Management Symposium, Jan 22-25, 2007, Tokyo, Japan
5. **Hong, Y\***, R.F. Adler, and G.J. Huffman, Mapping Global Landslide Susceptibility, International Panel on Landslide Risk Analysis and Sustainable Disaster Management *Symposium, Jan 22-25, 2007, Tokyo, Japan*
6. **Hong, Y\***, R.F. Adler, G.J. Huffman, Evaluation of the Potential of NASA TRMM-based Precipitation Analysis in Global Landslide Hazard Assessment, Nov 23-24, 2006, Paris, France, ICL/UNESCO
7. Sorooshian, Soroosh\*, K. Hsu, **Y. Hong**, 2005, Global Precipitation Estimation from Satellite Image Using Artificial Neural Networks, UNESCO science meeting on Water And Development Information for Arid Lands-A Global Network, Feb. 2005, India

8. **Hong, Y\***, K. Hsu, S. Sorooshian, 2005: A real-time operational precipitation estimation system from multi-platform and multi-channel satellite data, ISBN 92-9110-070-6, ISSN 1727-432X, Published and distributed by: Naval Research Laboratory, Marine Meteorology Division, 7 Grace Hopper Avenue, Monterey, CA 93940, USA and EUMETSAT, Am Kavalleriesand 31, D-64295 Darmstadt, Germany
9. Hsu, Kuo-lin\*, **Y. Hong**, and S. Sorooshian, 2005: Self-Organizing Nonlinear Output Map (SONO): An Artificial Neural Network suitable for Cloud-patch based Rainfall Estimation, *American Meteorology Society Transactions*.
10. **Hong, Y\***, K. Hsu, and S. Sorooshian, 2003: Precipitation Estimation from Remotely Sensed Information--A Combined Passive Microwave/IR Algorithm using Cloud Classification System, in *Proceedings of 30<sup>th</sup> IEEE International Symposium on Remote Sensing of Environment, Honolulu, Hawaii*

#### **D. Technique Reports and Software Package**

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