Appendix A: Uncertainty Analysis Publications

General Uncertainty Analysis

Guides, texts and articles

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Abernethy, A.B., Benedict, R.P., and Dowdell, R.B., (1985.) ASME measurement uncertainty. Journal of Fluids Engineering, Transactions of the ASME, June 1985.

AIAA (1999). Assessment of Experimental Uncertainty with Application to Wind Tunnel Testing, Standard S-071A-1999. American Institute of Aeronautics and Astronautics. 84 pp.

Eisenhart, C., Ku, H.H., and Colle, R (1983). Expression of the uncertainties of final measurement results: Reprints. National Bureau of Standards, Washington DC.
European Co-operation for Accreditation (1999). Expression of the uncertainty of measurement in calibration. Publication Reference EA-4/02.
ISO (1988). ISO 7066-2:1988 Assessment of uncertainty in the calibration and use of flow measurement devices -- Part 2: Non-linear calibration relationships
ISO (1993) Guide to the expression of uncertainty in measurement (GUM): ISO/IEC Guide 98, Geneva
ISO (1995) Guide to the expression of uncertainties in measurement (ISO, IEC, IFCC, IUPAC, IUPAP, OIML).
ISO (1997) ISO/TR 7066-1:1997 Assessment of uncertainty in calibration and use of flow measurement devices -- Part 1: Linear calibration relationships
NIST (1997) American National Standard for Expressing Uncertainty--U.S. Guide to the Expression of Uncertainty in Measurement, ANSI/NCSL Z540-2-1997

Flow Measurement UA

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Herschy, R. W. (1985) Accuracy-streamflow measurement: Elsevier Applied Science Publishing, Chapter 14, p. 474-510
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Whalley, N., Iredale, R.S., and Clare, A.F. (2001) “Reliability and uncertainty in flow measurement techniques – some current thinking.” Phys. Chem. Earth (C), 26(10-12), 743-749.

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ISO (2005) Measurement of fluid flow -- Procedures for the evaluation of uncertainties: ISO 5168, Geneva
ISO (2007) Measurement of liquid flow in open channels – Velocity-area methods: ISO 748, Geneva
ISO (2007) Hydrometry – Velocity-area methods using current-meters – Collection and processing of data for determination of uncertainties in flow measurement: ISO 1088, Geneva, Switzerland
ISO (2007) ISO/CEN PDTS 25377 (2007) Hydrometric Uncertainty Guide (HUG)

Specific Flow Measurement UA

Acoustic profilers

Changjiang Water Resources Commission, Bureau of Hydrology (2004) River discharge measurement on the Yangtze River with acoustic Doppler current profiler, Field Measurement Verification Test and Development Study. Bureau of Hydrology, The Ministry of Water Resources, Wuhan, China 29pp
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Muste, M., Yu,K., Pratt, T., and Abraham,D. (2004) Practical aspects of ADCP data use for quantification of mean river flow characteristics: Part 11 Fixed- vessel measurements J.Flow Meas. And Instr 15(1) pp17-28

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Simpson, M.R. (2001) Discharge measurements using a broad-band acoustic doppler current profiler. USGS Open-File Report 01-1, Sacramento, CA. PDF.

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SonTek/YSI, (2000) ADP acoustic doppler profiler. Principles of operation. SonTek/YSI. San Diego, California 25pp

US Geological Survey (2002). Policy and Technical Guidance on Discharge Measurements using Acoustic Doppler Current Profilers, Office of Surface Water Technical Memorandum, 2pp

Yorke, T.H. and Oberg, K.A. (2002)m Measuring river velocity and discharge with acoustic Doppler profilers Flow Measurement and Instrumentation Vol. 13 Number 5-65pp

Mechanical Meters

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Smoot, G.F. and Carter, R.W. (1968) Are individual current meter ratings necessary?: American Society of Civil Engineers Journal of the Hydraulics Division, 94 (HY2), p. 391-397.

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