

6 REFERENCES

- Abily, M., Bertrand, N., Delestre, O., Gourbesville, P., & Duluc, C. M. (2016). Spatial global sensitivity analysis of high resolution classified topographic data use in 2D urban flood modelling. *Environmental Modelling Software*, 77, 183-195.
- Abdulla, F., & Badranih, L. (2009). Application of a Rainfall-Runoff Model to three catchments in Iraq. Taylor and Francis, London.
- Ali, H. T. (2016). Digital Urban Terrain Characterization for 1D-2D Hydrodynamic Flood Modelling in Kigali, Rwanda, MSc Thesis, University of Twente.
- Ali, A., Solomatine, D. P., & Di Baldassarre, G. (2015). Assessing the impact of different sources of topographic data on 1-D hydraulic modelling of floods. *Hydrology and Earth System Sciences*, 19(1), 631–643.
- Alkema, D. (2007). Simulating Floods: on the application of a 2D hydraulic model for flood hazard and risk assessment. MSc Theses, International Institute for geo-information science and earth observation, Netherlands
- Anselin, L. (1995). Local indicators of spatial association—LISA. *Geographical Analysis* 27, 93–115
- Ariyabandu, M. M., & Hulangamuwa, P. (2002). Corporate Social Responsibility and Natural Disaster Reduction in Sri Lanka, Report.
- Apirumanekul, C., & Mark, O. (2001). Modelling of Urban Flooding in Dhaka City. In: Proceedings of 4th DHI Software Conference, 101-108.
- ASTER GDEM Readme Handbook.
- Bates, P. D., & De Roo, A. P. J. (2000). A simple raster-based model for flood inundation simulation. *Journal of Hydrology*, 236(1–2), 54–77.
- Bates, P. D., Horritt, M. S., Hervouet, J. M. (1998a). Investigating two-dimensional, finite element predictions of floodplain inundation using fractal generated topography. *Hydrological Processes*, 12, 1257– 1277.
- Bates, P. D., & Horritt, M.S. (2002). LISFLOOD-FP User Manual and Technical note, Technical report, University of Bristol.
- Bates, P. D., Marks, K. J., & Horritt, M. S. (2003). Optimal use of high-resolution topographic data in flood inundation models. *Hydrological Processes*, 17, 537–557.
- Bates, P. D., Horritt, M. S., & Timothy, J. (2010). A simple inertial formulation of the shallow water equations for efficient two-dimensional flood inundation modelling. *Journal of Hydrology*, 387 (1–2), 33–45. <https://doi.org/10.1016/j.jhydrol.2010.03.027>.
- Becker, A., & Grunewald, U. (2003). Flood risk in central Europe. *Science*, 300, 1099-1109.
- Berry, P. A. M., Garlick, J. D., & Smith, R. G. (2007). Near-global validation of the SRTM DEM using satellite radar altimetry, *Remote Sensing Environment*, 106, 17–27.

- Beven, K. (2001). Changing ideas in hydrology- The case of physically-based models. *Journal of Hydrology*, 105(1–2), 157–172. [http://doi.org/10.1016/0022-1694\(89\)90101-7](http://doi.org/10.1016/0022-1694(89)90101-7).
- Beven, K. & Binley, A. (1992). The future of distributed models – model calibration and uncertainty prediction, *Hydrological. Process.* 6, 279–298.
- Bozoğlu, B. (2015). 1-D and 2-D flood modelling studies and upstream structural measures for Samsun city terme district, MSc Thesis, The graduate school of natural and applied sciences of Middle East Technical University.
- Brandt, S. (2005). Resolution issues of elevation data during inundation modelling of river floods. Proceedings of the XXXI IAHR Congress, 3573–3581.
- Brunner, G. W. (2014). Combine 1D and 2D Modeling with HEC-RAS. USACE-HEC.
- Casas, A., Benito, G., Thorndycraft, V. R., & Rico, M. (2006). The topographic data source of digital terrain models is a key element in the accuracy of hydraulic flood modelling. *Earth Surface Processes and Landforms*, 31, 444-456.
- Charlton, M. E., Large, A. R. G., & Fuller, I. C. (2003). Application of airborne LiDAR in river environments: the River Coquet, Northumberland, UK. *Earth Surface Processes and Landforms*, 28(3), 299–306.
- Chaieb, A., Rebai, N. & Bouaziz, S. (2016). Vertical Accuracy Assessment of SRTM Ver 4 .1 and ASTER GDEM Ver 2 Using GPS Measurements in Central West of Tunisia. *Journal of Geographic Information System*, 8, 57–64.
- Chow, V. T. (1959). Open channel hydraulics. McGraw-Hill Book Company, New York.
- Chu, X., & Steinman, A. (2009). Event and Continuous Hydrologic Modeling with HEC-HMS. *Journal of Irrigation and Drainage Engineering*, 135(1), 119–124. [https://doi.org/10.1061/\(ASCE\)0733-9437\(2009\)135:1\(119\)](https://doi.org/10.1061/(ASCE)0733-9437(2009)135:1(119)).
- Consultative Group for International Agriculture Research Consortium for Spatial Information (CGIAR-CSI) [web log post]. Retrieved 2004, from <http://srtm.csi.cgiar.org>.
- Cook, A. & Merwade, V. (2009). Effect of topographic data, geometric configuration and modelling approach on flood inundation mapping. *Journal of Hydrology*, 377, 131–142.
- Danish Hydraulic Institute, (1997). MIKE11 GIS Reference and User Manual. DHI: Horsholm
- Danish Hydraulic Institute, (2007). MIKE 21 Environmental Hydraulics, Advection–Dispersion Module Reference Manual. DHI: Horsholm.
- De Silva, M. M. G. T., Weerakoon, S. B., Herath, S., Ratnayake, U. R., & Mahanama, S. (2012). Flood Inundation Mapping along the Lower Reach of Kelani River Basin under the Impact of Climatic Change. *Engineer: Journal of the Institution of Engineers, Sri Lanka*, 45(2).
- Disaster Management Center Annual Report, 2012.

- Disaster Management Center Website, Retrieved from [http:// www.desinventar.lk](http://www.desinventar.lk).
- Dong, L. (2006). Evaluation of high-quality topographical data for geomorphological and flood impact studies in the upland area: North york moors, UK, Durham Theses, Durham University.
- Dottori, F., Di Baldassarre, G., & Todini, E. (2013). Detailed data is welcome, but with a pinch of salt: Accuracy, precision, and uncertainty in flood inundation modelling, *Water Resources Research*, 49, 6079–6085, doi:10.1002/wrcr.20406.
- EEA. (2001). Sustainable water use in Europe. Part 3: Extreme hydrological events: floods and droughts. Environmental Issues Report No 21, Copenhagen, 2001.
- Engel, B. D., Storm, M., White, J. G., & Arnold, A. (2007). A hydrologic/water quality model application protocol. *Journal of American Water Resources Association*, 43(5), 1223-1236.
- Erdogan, S. (2010). Modelling the spatial distribution of DEM error with geographically weighted regression: An experimental study. *Computational Geoscience*, 36, 34–43.
- Erskine, R. H., Green, T. R., Ramirez, J. A., & Macdonald, L. H. (2007). Digital Elevation Accuracy and Grid Cell Size : Effects on Estimated Terrain Attributes, 71(4). <https://doi.org/10.2136/sssaj2005.0142>
- ESRI (USA). (2014a). ArcGIS 10.1 Help-Cell size of raster data. Environmental Systems Research Institute.
- Farr, T., & Kobrick, M. (2001). The Shuttle Radar Topography Mission. *American Geophysical Union EOS*, 81, 583–585.
- Fotheringham, A. S., Brunson, C., & Charlton, M. (2002). Geographically Weighted Regression: The analysis of spatially varying relationships, first edition John Wiley & Sons, Chichester, UK 269.
- Gallay, M., Lloyd, C., & McKinley, J. (2010). Using geographically weighted regression for analysing elevation error of high-resolution DEMs. In Proceedings of the Ninth International Accuracy Symposium, Leicester, UK.
- Getis, A., & Ord, J. K. (1992). The analysis of spatial association by use of distance statistics. *Geographical Analysis*, 24, 189–206.
- Ghasemi, A., & Zahediasl, S. (2012). Normality tests for statistical analysis: a guide for non-statisticians. *International journal of endocrinology and metabolism*, 10(2), 486-9.
- Gichamo, T. Z., Popescu, I., Jonoski, A., & Solomatine, D. (2012). River cross-section extraction from the ASTER global DEM for flood modelling. *Environmental Modelling Software*, 31, 37–46.
- Gilles, D. W. (2010). Application of numerical models for improvement of flood preparedness. MS (Master of Science) thesis, University of Iowa.

- Gomez, C. (2017). Tsunami Flood Simulation Investigation using NAYS-2D code in Kobe-City.[Research Report] Kobe University.
- Gomez, C., & Purdie, H. (2018). Point cloud technology and 2D computational flow dynamic modelling for rapid hazards and disaster risk appraisal on Yellow Creek fan, Southern Alps of New Zealand. *Progress in Earth and Planetary Science*, 5(1).
- Gorokhovich, Y., Voustianiouk, A. (2006). Accuracy assessment of the processed SRTM-based elevation data by CGIAR using field data from the USA and Thailand and its relation to the terrain characteristics. *Remote Sensing of Environment*, 104 (4), 409–415.
- GTOPO READ me file (2015, January). Retrieved from <http://edcdaac.usgs.gov/gtopo30/README.asp>.
- Gunasekara, I. P. A. (2008). Flood hazard mapping in lower reach of Kelani basin. *Journal of the Institution of Engineers*, 45 (2),149-154.
- Gupta, H. V., Sorooshian, S., & Yapo, P. O. (1998). Toward improved calibration of hydrologic models: Multiple and non-commensurable measures of information, *Water Resour. Res.* 34, 4, 751-763, doi: 10.1029/97WR03495.
- Gupta, H. V., Sorooshian, S., Yapo, P. O. (1999). Status of automatic calibration for hydrologic models: comparison with multilevel expert calibration. *Journal of Hydrological Engineering*, 4(2), 135–143.
- Haile, A. T. (2005). Integrating Hydrodynamic Models and High-Resolution DEM (LIDAR) for flood modelling. MSc Theses, International Institute for geo-information science and earth observation, Netherlands.
- Haile, A. & Rientjes, T. (2005). Effects of LiDAR DEM resolution in flood modelling: a model sensitivity study for the city of Tegucigalpa, Honduras. Isprs Wg Iii/3, Iii/4 workshop” Laserscanning”, Netherland, 168–173.
- Hale, J. (2003). Urban flood routing, the next step. WaPUG Autumn Conference, Blackpool, UK.
- Hall, J. W., Tarantola, S., Bates, P. D., & Horritt, M. S. (2005). Distributed Sensitivity Analysis of Flood Inundation Model Calibration. *Journal of Hydraulic Engineering*, 131, 117–126.
- Hamby, D. M. (1994). A review of techniques for parameter sensitivity analysis of environmental models. *Environmental Monitoring and Assessment*, 32(2), 135-154.
- Hashmi, H. N., Siddiqui, Q. T. M., Kamal, M. A., Mughal, H. R., & Ghumman, A. R. (2012). Assessment of inundation extent for flash flood management. *African Journal of Agricultural Research*, 7(8), 1346-1357.
- HEC-RAS River Analysis System (2010) Hydraulic Reference Manual. US Army Corps of Engineers-Hydrologic Engineering Center.
- Hodgson, M. E, Jensen, J. R., Schmidt, L., Schill, S., & Davis, B. (2003). An evaluation of LIDAR-and IFSAR-derived digital elevation models in leaf-on conditions with USGS Level 1 and Level 2 DEMs. *Remote Sensing Environment*, 84, 295–308.

- Höhle, J., & Höhle, M. (2009). Accuracy assessment of digital elevation models by means of robust statistical methods. *ISPRS Journal of Photogrammetric Remote Sensing*, 64, 398–406.
- Holmes, K. W., Chadwick, O. A., & Kyriakidis, P. C. (2000). Error in USGS 30 meter digital elevation model and its impact on terrain modelling. *Journal of Hydrology*, 233, 154–173.
- Horritt, M. S. & Bates, P. D. (2001). Predicting floodplain inundation: Raster-based modelling versus the finite-element approach. *Hydrological Processes*, 15(5), 825–842.
- Huggel, C., Caplan-Auerbach, J., Gruber, S., Monia, B., & Wessels, R. (2008). The 2005 Mt. Steller, Alaska, rock-ice avalanche: Large slope failures in cold permafrost; In: Proceedings of the Ninth International Conference on Permafrost, 29 July 2008, Fairbanks, AK, 747–752.
- Ibbitt, R. P., & O'Donnell, T. (1971). Fitting methods for conceptual catchment models. *Journal of Hydraulic Engineering*, 97 (9), 1331–1342.
- iRIC Software. (2014). Nays2DH Solver Manual.
- Irie, M., Ahmed, B. A. O., & Komatsu, S. (2015). Numerical Simulation of the Inundation on the Floodplain of Senegal River for the Improvement of the Agricultural Productivity in Mauritania. *Journal of Arid Land Studies*, 25(3), 121-124.
- Jang, C. L., & Shimizu, Y. (2005). Numerical simulation of relatively wide, shallow channels with erodible banks. *Journal Hydraulic Engineering*, 131(7), 565–575.
- Jarvis, A., Reuter, H. I., Nelson, A., & Guevara, E. (2012). Hole-filled SRTM for the globe Version 4. CGIAR-CSI SRTM 90 m Database 2008. <http://srtm.csi.cgiar.org>. Accessed on 1 July 2012.
- Jung, Y., & Merwade, V. (2011). Uncertainty Quantification in Flood Inundation Mapping Using Generalized Likelihood Uncertainty Estimate and Sensitivity Analysis. *Journal of Hydrologic Engineering*, 17(4), 507–520.
- Julian, E. (2012). Flood risk analysis: impacts of uncertainty in hazard modelling and vulnerability assessment on damage estimations. PhD thesis, University of Strasbourg, France.
- Jung, Y., & Merwade, V. (2011). Uncertainty Quantification in Flood Inundation Mapping Using Generalized Likelihood Uncertainty Estimate and Sensitivity Analysis. *Journal of Hydrologic Engineering, ASCE*, 17(4), 507–520.
- Kenward, T., Lettenmaier, D. P., Wood, E. F., & Fielding, E., (2000). Effects of digital elevation model accuracy on hydrologic predictions. *Remote Sensing of Environment*, 74 (3), 432-444.
- Kiamehr, R. (2005). Effect of the SRTM global DEM on the determination of a high-resolution geoid model : a case study in Iran, 79, 540–551.
- Kourgialas, N. N., & Karatzas, G. P. (2013). A hydro-economic modelling framework for flood damage estimation and the role of riparian vegetation. *Hydrological Processes*, 27(4), 515–531.

- Krause, P., Boyle, D. P., & Bäse, F. (2005). Comparison of different efficiency criteria for hydrological model assessment. *Advances in Geosciences*, 5, 89–97. <https://doi.org/10.5194/adgeo-5-89-2005>.
- Laks, I., Sojka, M., Walczak, Z., & Wróżyński, R. (2017). Possibilities of Using Low-Quality Digital Elevation Models of Floodplains in Hydraulic Numerical Models *Water*, 9, 283.
- Lang, P. (2010). TELEMAC-2D Software Manual, Version 6.0.
- Legates, D. R. & McCabe Jr., G. J. (1999). Evaluating the use of “goodness-of-fit” measures in hydrologic and hydroclimatic model validation, *Water Resources Research*, 35 (1), 233–241.
- Li, J. & Wong, D. W. S. (2010). Effects of DEM sources on hydrologic applications. *Computers, Environment and Urban Systems*, 34(3), 251–261.
- Lin, S., Jing, C., Coles, N. A., Chaplot, V., Moore, N. J., & Wu, J. (2012). Evaluating DEM source and resolution uncertainties in the Soil and Water Assessment Tool. *Stochastic Environmental Research and Risk Assessment*, 27(1), 209–221.
- Mara, T. A., Tarantola, S., & Annoni, P. (2015). Non-parametric methods for global sensitivity analysis of model output with dependent inputs. *Environmental Modelling Software*, 72, 173-183.
- Marks, K. & Bates, P. (2000). Integration of high-resolution topographic data with floodplain models. *Hydrologic processes*, 14, 2109-2122.
- Ma, L., Ascough II, J. C., Ahuja, L. R., Shaffer, M. J., Hanson, J. D. & Rojas., K. W. (2000). Root zone water quality model sensitivity analysis using Monte Carlo simulation. *Trans. ASAE*43(4):883-895.
- Mata-Lima, H. (2011). Evaluation of the objective functions to improve production history matching performance based on fluid flow behaviour in reservoirs. *Journal of Petroleum Science and Engineering*, 78(1), 42–53. <https://doi.org/10.1016/j.petrol.2011.05.015>.
- Mazlan, M., & Razi, M. (2014). Generation of flood inundation model-General approach and methodology, 4(3), 19-25.
- Merwade, V., Cook, A., & Coonrod, J. (2008). GIS techniques for creating river terrain models for hydrodynamic modelling and flood inundation mapping. *Environmental Modelling & Software*, 23, 1300-1311.
- Merwade, V., Olivera, F., Arabi, M., & Edleman, S. (2008). Uncertainty in Flood Inundation Mapping: Current issues and future directions. *Journal of Hydrologic Engineering*, 13(7), 608–620.
- Monica, J. D. (2015). Flood modelling and the influence of digital terrain models: A case study of the Swannanoa River in North Carolina. MA Thesis, Appalachian State University.
- Moore, I. D., Grayson, R. B., & Ladson, A. R. (1991). Digital terrain modelling : a review of hydrological, geomorphological and biological applications, *Hydrological*

process, 5, 3–30.

Moriasi, D. N., Arnold, J. G., Lewis, M. W. V., Bingner, R. L., Harmel, R. D., & Veith, T. L. (2007). Model Evaluation Guidelines for Systematic Quantification of Accuracy in Watershed Simulations. *American Society of Agricultural and Biological Engineers*, 50(3), 885-900. <https://doi.org/10.13031/2013.23153>.

Moussa, R., & Bocquillon, C. (1996). Criteria for the choice of flood-routing methods in natural channels. *Journal of Hydrology*, 186, 1–30.

Mukherjee, S., Joshi, P. K., Mukherjee, S., & Ghosh, A. (2013). Evaluation of vertical accuracy of open source Digital Elevation Model (DEM). *International Journal of Applied Earth Observation and Geoinformation*, 21(1), 205–217.

Mukherjee, S., Mukherjee, S., Bhardwaj, A., Mukhopadhyay, A., Garg, R. D., & Hazra, S. (2015). Accuracy of Cartosat-1 DEM and its derived attribute, *Journal of Earth System Science*, 124, 487–495.

Nandalal, K. D. W. (2009). Use of the hydrodynamic model to forecast floods of Kalu River in Sri Lanka. *Journal of Flood Risk Management*, 2, 151-158.

Nash, J. E., & Sutcliffe, J. (1970). River flow forecasting through conceptual models Part I-A discussion of principles. *Journal of Hydrology*, 10 (3), 282–290.

Nelson, J. M., Shimizu, Y., Takebayashi, H., & McDonald, R. R. (2010). The International river interface cooperative: public domain software for river modelling. 2nd Joint Federal Interagency Conference, Las Vegas, NV.

Nelson et al. (2016). The international river interface cooperative: Public domain flow and morphodynamics software for education and applications, *Advances in Water Resources*, 93, 62-74.

O'Brien, J. D. (2006). FLO-2D User's Manual, Version 2006.01. FLO Engineering: Nutrioso.

O'Callaghan, J., & Mark, D. (1984). The extraction of drainage networks from digital elevation data. *Computer vision, graphics, and image processing*, 28 (3), 323-344.

Pakoksung, K., & Takagi, M. (2016). Digital elevation models on accuracy validation and bias correction in vertical. *Modeling Earth Systems and Environment*, 2(1).

Páez, A., Farber, S., & Wheeler, D. (2011). A simulation-based study of geographically weighted regression as a method for investigating spatially varying relationships. *Environment and Planning*, 43(12), 2992-3010.

Peña, F., & Nardi, F. (2018). Floodplain Terrain Analysis for Coarse Resolution 2D Flood Modeling. *Hydrology*, 5(4), 52. <https://doi.org/10.3390/hydrology5040052>.

Papaioannou, G., Loukas, A., Vasiliades, L., & Aronica, G. T. (2016). Flood inundation mapping sensitivity to riverine spatial resolution and modelling approach. *Natural Hazards*, 83(S1), 117-132. <https://doi.org/10.1007/s11069-016-2382-1>.

Pappenberger, F., Beven, K., Horritt, M., & Blazkova, S. (2005). Uncertainty in the calibration of effective roughness parameters in HEC-RAS using inundation and downstream level observations. *Journal of Hydrology*, 302, 46–69.

- Pappenberger, F., Matgen, P., Beven, K. J., Henry, J. B., Pfister, L., & Fraipont, P. (2006). Influence of uncertain boundary conditions and model structure on flood inundation predictions. *Advances in Water Resources*, 29(10), 1430–1449.
- Pappenberger, F., Beven, K. J., Ratto, M., Matgen, P. (2008). Multi-method global sensitivity analysis of flood inundation models. *Advanced Water Resources* 31 (1), 1-14.
- Rabus, B., Eineder, M., Roth, A., & Bamler, R. (2003). The shuttle radar topography mission – a new class of digital elevation models acquired by spaceborne radar, *ISPRS Journal of Photogrammetric and Remote Sensing*, 57, 241–262.
- Rai, P. K., Dhanya, C. T., & Chahar, B. R. (2018). Coupling of 1D models (SWAT and SWMM) with 2D model (iRIC) for mapping inundation in Brahmani and Baitarani river delta. *Natural Hazards*, 92(3), 1821–1840. <https://doi.org/10.1007/s11069-018-3281-4>.
- Rayburg, S., Thoms, M., & Neave, M. (2009). A comparison of digital elevation models generated from different data sources. *Geomorphology*, 106, 261–270.
- Rodriguez, E., Morris, C., & Belz, J. (2006). A global assessment of SRTM performance. *Photogrammetric Engineering and Remote Sensing*, 72, 249–260.
- Rutschmann, P., & Hager, W. (1996). Diffusion of flood waves. *Journal of Hydrology*, 178, 19–32.
- Samuels, P. G. (1990). Cross-section location in one-dimensional models. International Conference on River Flood Hydraulics, 339-350.
- Samarasinghe, S. M. J. S., Nandalal, H. K., Weliwitiya, D. P., Fowze, J. S. M., Hazarika, M. K., & Samarakoon, L. (2010). Application of Remote Sensing and GIS for flood risk analysis: a case study at Kalu River, Sri Lanka, International Archives of the Photogrammetry, Remote Sensing and Spatial Information Science, Volume XXXVIII, Part 8.
- Sanders, B. F. (2007). Evaluation of online DEMs for flood inundation modelling. *Advances in Water Resources*, 30(8), 1831–1843.
- Saltelli, A., Chan, K., & Scott, M. (2000). Sensitivity analysis, Wiley, New York.
- Schumann, G., Matgen, P., Cutler, M. E. J., Black, A., Hoffmann, L., & Pfister, L. (2008). Comparison of remotely sensed water stages from LiDAR, topographic contours and SRTM. *Journal of Photogrammetry and Remote Sensing*, 63(3), 283–296.
- Shokory, J. A. N., Tsutsumi, J. G., & Sakai, K. (2016). Flood Modeling and Simulation using iRIC : A Case Study of Kabul City. 3rd European Conference on Flood Risk Management.
- Siddarth, S. (2014). Investigating the role of dem resolution and accuracy on flood inundation mapping. MSc Thesis, Purdue University.
- Srinivas, K., Werner, M., & Wright, N. (2008). Comparing forecast skill of inundation models of differing complexity: The case of Upton upon Severn. *Flood Risk Management: Research and Practice*, 85–94.

- Smith, S., Holland, D., & Longley, P. (2004). The importance of understanding error in Lidar digital elevation models. *Proceedings of XXth ISPRS*.
- Smith, S. L H. D. A., & Longley, P. A. (2003). The effect of changing grid size in the creation of laser scanner digital surface models. URL:www.geocomputation.org. Access date:12/2004.
- Snead, D. B. (2000). Development and application of unsteady flow models using geographic information systems. Master Thesis. University of Texas at Austin, Texas.
- Straatsma, M., & Huthoff, F. (2011). Uncertainty in 2D hydrodynamic models from errors in roughness parameterization based on aerial images. *Physics and Chemistry of the Earth*, 36, 324–334.
- Sun, G., Ranson, K. J., Kharuk, V. I., & Kovacs, K. (2003). Validation of surface height from shuttle radar topography mission using shuttle laser altimetry, *Remote Sensing Environment*, 88, 401–411.
- Tate, E. C., Maidment, D. R., Olivera, F., & Anderson, D. J. (2002). Creating a Terrain Model for Floodplain Mapping. *Journal of Hydrologic Engineering*, 7, 100–108.
- Tarekegn, T. H., Haile, A. T., Rientjes, T., Reggiani, P., & Alkema, D. (2010). Assessment of ASTER generated DEM for 2D hydrodynamic flood modelling. *International Journal of Applied Earth Observation and Geoinformation*, 12(6), 457–465.
- Tekleab, S., Uhlenbrook, S., Mohamed, Y., Savenije, H. H., Temesgen, M., & Wenninger, J. (2011). Water Balance Modeling of Upper Blue Nile Catchments using a TopDown Approach. Copernicus Publication.
- Thompson, J. A., Bell, J. C., & Butler, C. A. (2001). Digital elevation model resolution, Effects on terrain attribute calculation and quantitative soil-landscape modelling. *Geoderma*, 100, 67–89.
- Thornton, P. E., Running, S. W., & White, M. A. (1997). Generating surface of a daily meteorological variable over large regions of complex terrain. *Journal of Hydrology*, 190 (3–4), 214–250.
- Tsubaki, R., & Kawahara, Y., (2013). The uncertainty of local flow parameters during inundation flow over complex topographies with elevation errors. *Journal of Hydrology*, 486, 71-87.
- USACE, (2002). US-Army Corps of Engineers, HEC-River Analysis System, Hydraulic Reference Manual, Version 3.1.
- U.S. Geological Survey [web log post]. Retrieved August 15,2018, from <http://earthexplorer.usgs.gov>.
- Vaze, J., Teng, J., & Spencer, G. (2010). Impact of DEM accuracy and resolution on topographic indices. *Environmental Modelling and Software*, 25(10), 1086–1098.
- Varga, M., & Bašić, T. (2015). Accuracy validation and comparison of global digital elevation models over Croatia. *International Journal of Remote Sensing*, 36(1), 170–189.

- Vanderkimpfen, P., Melger, E., & Peeters, P. (2009.). Flood modelling for risk evaluation- a MIKE FLOOD vs. SOBEK 1D2D benchmark study. *Flood Risk Management: Research and Practice (CRC Press 2008)*, 77–84. <https://doi.org/10.1201/9780203883020.ch9>.
- Van Niel, T. G., McVicar, T. R., Li, L., Gallant, J. C., & Yang, Q. (2008). The impact of misregistration on SRTM and DEM image differences. *Remote Sensing of Environment*, 112 (5), 2430–2442.
- Walczak, Z., Sojka, M., Wrózyński, R., & Laks, I. (2016). Estimation of Polder Retention Capacity Based on ASTER, SRTM and LIDAR DEMs: The Case of Majdany Polder (West Poland). *Water*, 8, 230.
- Waseem, M., Mani, N., Andiego, G., & Usman, M. (2017). A review of criteria of fit for hydrological models. *International Research Journal of Engineering and Technology*, 04 (11), 1765-1772.
- Wang, W., Yang, X., & Yao, T. (2011). Evaluation of ASTER GDEM and SRTM and their suitability in hydraulic modelling of a glacial lake outburst flood in southeast Tibet, *Hydrological Process*, 26, 213–225.
- Werner, M. G. F. (2001). Impact of grid size in GIS-based flood extent mapping using a 1-D flow model. *Physics and Chemistry of the Earth, Part B: Hydrology, Oceans and Atmosphere*, 26(7–8), 517–522.
- Werner, M. G. F., Hunter, N. M., & Bates, P. D. (2005). Identifiability of distributed floodplain roughness values in flood extent estimation. *Journal of Hydrology*, 314, 139–157.
- Wongsa, S. (2014). Simulation of Thailand Flood 2011. *International Journal of Engineering and Technology*, 6(6), 452–458. <https://doi.org/10.7763/IJET.2014.V6.740>.
- World Meteorological Organization. (1975) Inter-comparison of conceptual models used in operational hydrological forecasting. (Operational hydrology report no.7/WMO- No 429). Geneva, Switzerland.
- World Meteorological Organization (WMO)(2003). Our Future Climate Publication, WO-952.
- World Meteorological Organization (WMO) (2008). Guide to Hydrological Practices. Volume I: Hydrology-from Measurement to Hydrological Information. WMO No. 168. World Meteorological Organization, Geneva.
- World Meteorological Organization (WMO) and Global Water Partnership (GWP), (2013). Integrated Flood Management Tools Series No.20.
- Wright, N. G., Villanueva, I., Bates, P. D., Mason, D. C., Wilson, M. D., Pender, G., Neelz, S. (2008). Case Study of the Use of Remotely Sensed Data for Modeling Flood Inundation on the River Severn, U.K. *Journal of Hydraulic Engineering*. (ASCE) 134 (5).
- Xiong, L., & Guo, S. (1999). A two-parameter monthly water balance model and its application. *Journal of Hydrology*, 216(1–2), 111–123.

Yalcin, G., & Akyurek, Z. (2004). Analysing flood vulnerable areas with multicriteria evaluation. *International Society for Photogrammetry and Remote Sensing, XXth ISPRS Congress, Istanbul, Turkey, 12-23 July.*

Yap, B. W., & Sim, C. H. (2011). Comparisons of various types of normality tests, *Journal of Statistical Computation and Simulation*, 81, 2141-2155.