

**CONFERENCE ARTICLES (60)**

\* indicates Master Students

- Hasegawa A. and **Gusyev M.** (2018). Comparative standardized precipitation evapotranspiration index analysis of d4PDF\_GCM dataset. 15th Annual Meeting of the Asia Oceania Geosciences Society (AOGS), Honolulu, Jun 3-8, USA
- Hasegawa A. and **Gusyev M.** (2018). Concept Study on Seasonal Prediction of Meteorological Droughts Using the Comparative Standardized Precipitation Index. 15th Annual Meeting of the Asia Oceania Geosciences Society (AOGS), Honolulu, Jun 3-8, USA.
- Stewart M.K., Morgenstern U., **M.A. Gusyev** and P. Maloszewski (2018). Uncertainties of tritium streamflow transit times: Experiments with single and double lumped parameter models. The EGU 2018 General Assembly, Geophysical Research Abstracts EGU2018-11167, Vienna, Apr 8-13, Austria.
- Stewart M.K., Morgenstern U., Toews M., van der Raaij R. and **M. Gusyev** (2017). Uncertainties of tritium streamflow ages. The 14th Australasian Environmental Isotope Conference, Wellington, March 26-28<sup>th</sup>, NZ.
- Tsujimura M., Sakakibara K., Imaizumi Y., **Gusyev M.**, Morgenstern U., and M. Stewart (2018). Spatial and temporal variation of residence time of spring and groundwater in multiple watersheds, Japan and New Zealand. The 14th Australasian Environmental Isotope Conference, Wellington, March 26-28<sup>th</sup>, NZ.
- Stewart M.K., Morgenstern U., Toews M., van der Raaij R. and **M. Gusyev** (2017). Uncertainty estimation for tritium ages of baseflow. 57<sup>th</sup> New Zealand Hydrological Society Annual Meeting 2017, Napier, Nov 28th-Dec 1, New Zealand.
- Gusyev M.A.**, Morgenstern U., Stewart M.K., and Y. Tokunaga (2017). Learning about future applications of tritium-tracer in Japanese river waters from the Hokkaido headwater catchments. JpGU-AGU 2017 Joint Meeting, Chiba, May 20-25<sup>th</sup>, Japan.
- Hasegawa A., **Gusyev M.A.**, and Y. Iwami (2017). Meteorological drought change evaluation using comparative standardized precipitation index with d4PDF future and past experiments. Poster Presentation at the JpGU-AGU 2017 Joint Meeting, Chiba, May 20-25<sup>th</sup>, Japan.
- Zhang H., Ao T., **Gusyev M.A.**, Li X., Liu X., Liu J., and H. Wang (2017). Development and Application of a Distributed Source Pollutant Transport Model Based on BTOPMC. Poster Presentation at the JpGU-AGU 2017 Joint Meeting, Chiba, May 20-25<sup>th</sup>, Japan.
- Gusyev M.A.**, Abrams D., Magome J., and Y. Tokunaga (2017). Coupling MODFLOW and distributed hydrologic model BTOP in the Fujikawa River basin. Poster Presentation at the MODFLOW and More 2017 Conference, Colorado, May 21-24<sup>th</sup>, USA.
- Stewart M.K., Morgenstern U., **M.A. Gusyev** and P. Maloszewski (2017). The problem with simple lumped parameter models: Evidence from tritium mean transit times. Poster Presentation at the EGU 2017 General Assembly, Geophysical Research Abstracts, Vol. 19, EGU 2017-10116.
- Stewart M.K., Morgenstern U. and **M.A. Gusyev** (2016). Tritium-based transit times in Hydrological Systems. Poster Presentation at the 56<sup>th</sup> New Zealand Hydrological Society Annual Meeting 2016, Queenstown, Nov 26th-Dec 2nd, New Zealand.
- Gusyev M.A.**, Morgenstern U., Stewart M.K., Yamazaki Y., Kashiwaya K., Nishihara T., Kuribayashi D., Sawano H. and Y. Iwami (2016). Groundwater Availability Assessment Using Tritium River Water Measurements for Existing Dam Infrastructure in the Ishikari River basin, Japan. 7th International Conference on Water Resources and Environment Research (ICWRER) 2016, Kyoto, June 5-9, Japan.
- Gusyev M.**, Hasegawa A., Magome J., Umino H. and H. Sawano (2016). Drought impacts in Asian river basins: historical and climate change perspectives. 7th ICWRER 2016, Kyoto, June 5-9<sup>th</sup>.
- Hasegawa A., **Gusyev M.**, and Y. Iwami (2016). Meteorological Hazards of Droughts and Floods in Climate Projections by the Time-Slice Experiments with MRI-AGCM3.2 Using the Comparative SPI. 7th ICWRER 2016, Kyoto, June 5-9<sup>th</sup>, Japan.

- Magome J., Hasegawa A., **Gusyev M.**, and K. Takeuchi (2016). Future Projection of Extreme Hazard Using a Global BTOP with GCM Output. Poster Presentation at the 7<sup>th</sup> ICWRER 2016, Kyoto, June 5-9, Japan.
- Gusyev M.**, Abrams D., Morgenstern U. and M.K. Stewart (2016). Simulating nitrate response functions in watersheds: Case studies in the United States and New Zealand. Poster Presentation at the EGU 2016 General Assembly, Geophysical Research Abstracts, Vol. 17, EGU2016-10629.
- Gusyev M.**, Hasegawa A., Magome J., Umino H. and H. Sawano (2016). Towards Holistic Flood and Drought Assessment with BTOP model on global and local scales. Poster Presentation, 2<sup>nd</sup> Asian Water Cycle Symposium, Tokyo, March 1-2, Japan.
- Gusyev M.A.**, Morgenstern U., Stewart M.K., Yamazaki Y., Kashiwaya K., Kuribayashi D., Sawano H. and Y. Iwami (2015). Drought assessment using tritium river water measurements for existing dam infrastructure in the Ishikari River basin, Japan. Poster Presentation H13I-1694, AGU 2015 Fall Meeting, San Francisco, Dec 14-18, USA.
- Magome J., **Gusyev M.**, Hasegawa A. and K. Takeuchi (2015). Global Hydrological Hazard Evaluation System (Global BTOP) Using Distributed Hydrological Model. Poster Presentation NH13C-1950, AGU 2015 Fall Meeting, San Francisco, Dec 14-18, USA.
- Takeuchi K., **Gusyev M.**, Magome J., and M. Masood (2015). Global Floods and Droughts Simulation to Support International Flood Initiative and International Drought Initiative of the UNESCO International Hydrological Program. Poster Presentation H51A-1355, the AGU 2015 Fall Meeting, San Francisco, Dec 14-18, USA.
- Gusyev M.A.**, Morgenstern U., Stewart M.K., Yamazaki Y., Kashiwaya K., Kuribayashi D., Iwami Y. and H. Sawano (2015). Drought assessment using tritium river water measurements for existing dam infrastructure in the Ishikari River basin, Japan. The 21st International Congress on Modelling and Simulation (MODSIM) 2015, Queensland, Nov 29-Dec 4, Australia.
- Gusyev M.**, Hasegawa A., Magome J., Kuribayashi D. and H. Sawano (2015). Drought assessment in the Pampanga River basin, the Philippines - Part 1: Characterizing a role of dams in historical droughts with standardized indices. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Gusyev M.**, Hasegawa A., Magome J., Umino H. and H. Sawano (2015). Drought assessment in the Pampanga River basin, the Philippines - Part 3: Evaluating climate change impacts on dam infrastructure with standardized indices. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Nawai J.\*, **Gusyev M.**, Hasegawa A., and K. Takeuchi (2015). Flood and drought assessment with flood control infrastructure: A case study of the Ba River basin, Fiji. MODSIM 2015, Queensland, Nov. 29-Dec 4, Australia.
- Navarathinam K.\*, **Gusyev M.**, Magome J., Hasegawa A., and K. Takeuchi (2015). Agricultural flood and drought risk reduction by proposed multi-purpose dam: A case study of the Malwathoya River Basin, Sri Lanka. MODSIM 2015, Queensland, Nov. 29th-Dec 4th, Australia.
- Odhiambo C.\*, **Gusyev M.**, Magome J. and K. Takeuchi (2015). Flood and drought hazard reduction by proposed dams and a retarding basin: A case study of the Upper Ewaso Ngiro North River basin, Kenya. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Hasegawa A., **Gusyev M.**, Ushiyama T. and Y. Iwami (2015). Drought hazard and risk assessment in the Pampanga River basin, the Philippines - Part 2: Comparative SPI approach for quantifying climate change hazards. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Hasegawa A., **Gusyev M.**, Ushiyama T. and Y. Iwami (2015). A comparative SPI approach for qualifying historical and on-going droughts in the Pampanga River basin, the Philippines. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Magome J., **Gusyev M.**, Hasegawa A. and K. Takeuchi (2015). River discharge simulation of a distributed hydrological model on global scale for the hazard quantification. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.
- Sugiura A., Kudo S., **Gusyev M.**, and A. Yorozuya (2015). Constructing damages functions for paddy field hit by water-related disasters based on MODIS FPAR and a distributed hydrological model in data sparse context: the example of Solo River basin, Indonesia. MODSIM 2015, Queensland, Nov 29-Dec 4, Australia.

- Gusyev M.A.**, Kwak Y., Khairul I.\*, Arifuzzaman B.\*, Magome J., Sawano H. and K. Takeuchi (2015). Effectiveness of water infrastructure for river flood management: Part 1 - Flood Hazard Assessment using hydrological models in Bangladesh. 26<sup>th</sup> IUGG General Assembly 2015, Prague, June 22-July 2, Czech Republic.
- Kwak Y., **Gusyev M.A.**, Arifuzzaman B.\*, Khairul I.\*, Iwami Y. and K. Takeuchi (2015). Effectiveness of Water Infrastructure for River Flood Management: Part 2 - Flood Risk Assessment and Changes in Bangladesh. Poster Presentation at the 26<sup>th</sup> IUGG General Assembly 2015, Prague, June 22-July 2, Czech Republic.
- Gusyev M.**, Abrams D., Morgenstern U. and M. Stewart (2015). Development of nitrate response curves using MODFLOW-MODPATH, MODFLOW-MT3DMS, and lumped parameter model. Poster Presentation at MODFLOW and More 2015, Golden, CO, June 1-3, USA.
- Abrams D., **Gusyev M.** and H. Haitjema (2015). Comparison of methodologies for generating transit time distributions in watersheds: Insights for upscaling. MODFLOW and More 2015, Golden, CO, June 1-3, USA.
- Gusyev M.**, Yamazaki Y., Morgenstern U., Stewart M., Kashiwaya K., Hirai Y., Kuribayashi D. and H. Sawano (2015). Estimating subsurface water volumes and transit times in Hokkaido river catchments, Japan, using high-accuracy tritium analysis. Poster Presentation at the EGU 2015 General Assembly, Geophysical Research Abstracts, Vol. 17, EGU2015-7826.
- Gädeke A., **Gusyev M.**, J Magome, Sugiura A., Cullmann J. and K. Takeuchi (2015). Global and local scale flood discharge simulations in the Rhine River basin for flood risk reduction benchmarking in the Flagship Project. Poster Presentation at the EGU 2015 General Assembly, Geophysical Research Abstracts, Vol. 17, EGU2015-11924.
- Gusyev M.**, Kwak Y., Okazumi T., Lee S., Kuribayashi, D., Yasuda, N. and H. Sawano (2015). Simplified Flood Hazard Assessment Methodology: A step towards Global Risk Assessment. Poster Presentation at the Tokyo Conference on International Study for Disaster Risk Reduction and Resilience, Tokyo, January 14-16, Japan.
- Gusyev M.A.**, Yamazaki Y., Morgenstern U., Stewart M.K., Kashiwaya K., Hirai Y., Kuribayashi D., and H. Sawano (2014). Transit time of water discharges from catchments of Hokkaido, Japan. Poster Presentation in 2014 Water Symposium of New Zealand Hydrological Society, Blenheim, Nov 24-28, New Zealand.
- Gusyev M.**, Lee S., Okazumi T., and J. Magome (2014). Socio-economic drought characterization using hydrologic model with water infrastructure in the Pampanga River basin, the Philippines. Abstract HS10-A019, Asia Oceania Geosciences Society 11<sup>th</sup> Annual Meeting, Sapporo, July 28 – August 1<sup>st</sup>, Japan.
- Arifuzzaman B.\*, Kwak Y., **M. Gusyev** and K. Takeuchi (2013). Nationwide Riverine Flood Risk Assessment in Bangladesh by Using Inundation Modelling with GIS and Remote Sensing Techniques. Abstract CS2-19, 15th International Summer Symposium, Japan Society of Civil Engineers Annual Meeting, Nihon University, Chiba, Sep. 4-6, Japan.
- Kwak Y., Lee S., Okazumi T., Shrestha B., and **M. Gusyev** (2013). “Development of Global Flood Disaster Risk Index”. 6<sup>th</sup> International Conference on Water Resources and Environment Research (ICWRER), Paper #1016, Koblenz, June 3-7, Germany.
- Gusyev M.**, Okazumi T., Lee S., Kwak Y., Shrestha B.B., Magome J. and K. Takeuchi (2013). Characterization of hydrologic and socio-economic drought in Asian developing countries using global hydrologic model outputs with the threshold level method. Poster Presentation at the Scientific Segment, High-Level Meeting on National Drought Policy, Geneva, March 11-15, Switzerland.
- Magome J., **Gusyev M.**, Fukami K., Okazumi T. and K. Takeuchi (2013). A prototype flood forecasting and alert system “Global Flood Alert System - Streamflow”. 3<sup>rd</sup> International Workshop on Global Flood Monitoring and Modelling, University of Maryland, College Park, March 4-6, USA.
- Gusyev M.A.**, Toews M.W., Morgenstern U., Stewart M., White, P., Daughney C. and J. Hadfield (2012). Calibration of a transient transport model to tritium measurements in rivers and streams in the western Lake Taupo catchment, New Zealand. New Zealand Hydrological Society Annual Meeting, Nelson, November 26-30<sup>th</sup>, NZ.

- Toews M.W., **Gusyev M.A.**, Baalousha H., Gordon D. (2012). Defining transient groundwater catchments in the Ruataniwha Plains, Hawke's Bay. New Zealand Hydrological Society Annual Meeting, Nelson, November 26-30, New Zealand.
- Stewart M.K., van der Raaij R.W., **Gusyev M.**, Morgenstern U., Toews M.W. (2012). Flexible tools for interpreting environmental tracer measurements and recent applications. Poster Presentation at New Zealand Hydrological Society Annual Meeting, Nelson, November 26-30, New Zealand.
- Gusyev M.A.**, Toews M.W., Morgenstern U., Stewart M., Daughney C. and J. Hadfield (2012). Calibration of a transient transport model to tritium measurements in rivers and streams in the western Lake Taupo catchment, New Zealand. 2012 Geological Society of America (GSA) Annual Meeting, Charlotte, NC, November 4-7, USA.
- Morgenstern, U., Daughney, C.J., **Gusyev, M.A.** and M. Toews (2012). Illuminating the black box: Age of groundwater. Geophysical Research Abstracts, Vol. 14, EGU2012-2233, Poster Presentation at 2012 Geological Society of America (GSA) Annual Meeting, Charlotte, NC, November 4-7, USA.
- Gusyev M.** and M. Stewart (2012). Flexible tools for interpreting tracer measurements and recent applications. Geophysical Research Abstracts, Vol. 14, EGU2012-6687, Poster Presentation at EGU General Assembly 2012, Vienna, April 22-27, Austria.
- Morgenstern, U., Daughney, C.J., **Gusyev, M.A.** and M. Toews (2012). Age of groundwater. Geophysical Research Abstracts, Vol. 14, EGU2012-2233, Poster Presentation at EGU General Assembly 2012, Vienna, April 22-27, Austria.
- Gusyev M.A.**, Morgenstern U., Toews M.W., Abrams D. and J. Hadfield (2011). Learning from groundwater age tracers and numerical models. Proceedings 2011 New Zealand Hydrological Society Conference, Wellington, December 6-9th, NZ.
- Cameron S.G., **Gusyev M.A.** and G. Zemansky (2011). A groundwater-stream interaction model for determining effects of well pumping on spring-fed stream flow, Poukawa Basin, Hawke's Bay. Proceedings 2011 NZ Hydrological Society Conference, Wellington, December 6-9, NZ.
- Cameron S.G., **Gusyev M.A.**, Tschritter C., Close M., Nokes C., Hadfield J., Thomas J. and H. Zarour (2011). Envirolink tools project – capture zone delineation for hydrological features in New Zealand. Proceedings 2011 NZ Hydrological Society Conference, Wellington, Dec 6-9th, NZ.
- Gusyev M.A.**, Tschritter C., Moreau-Fournier M. and C. Daughney (2011). Capture zone delineation for national groundwater monitoring programme sites in the southland region. Poster Presentation. Proceedings 2011 NZ Hydrological Society Conference, Wellington, Dec 6-9th, NZ.
- Gusyev M.A.**, Haitjema H.M., Carlson C.P. and M.A. Gonzalez (2011). Surface-groundwater modelling in the Sheyenne National Grassland, North Dakota, USA. 2011 Geological Society of America (GSA) Annual Meeting, Minneapolis, Oct. 9–12th, USA.
- Gusyev M.A.**, Haitjema H.M., Hunt R.J. and D. Feinstein (2010). A Hybrid Finite-Difference and Analytic Element Groundwater Model. 2010. New Zealand Hydrological Sciences Society Conference 2010, December 6-10th, NZ.
- Haitjema H.M., R.J. Hunt, D. Feinstein, and **M.A. Gusyev** (2008). "Replacing upper MODFLOW layers with an analytic element model: An alternative to grid refinement". Feature Presentation for the "MODFLOW and More 2008: Ground Water and Public Policy Conference Proceedings", International Ground Water Modeling Center (IGWMC), Colorado School of Mines, May 18-21, USA.
- Gusyev M.A.** and H.M. Haitjema (2007). "Poster: An exact solution to a line-sink in a leaky aquifer", Eos Trans. American Geophysical Union, 88 (52), AGU Fall Meeting, Suppl., Abstract H13B-1254, San Francisco, December 10-14, USA.
- Gusyev M.A.** and H.M. Haitjema (2006). "A new Formulation for Conjunctive Flow in Wetlands and Underlying Aquifer". 5<sup>th</sup> International Conference on the Analytic Element Method (ICAEM), Manhattan, KS, May 14-17, USA.