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期刊論文著述 (* Corresponding Author, ¥ Advised Student Paper)

Sun, L., G. Zhao, and G. T. Yeh,

2018. An automatic quadrilateral mesh generation algorithm applied to 2-D overland flow simulations. *Comput. Geosci* (2018). doi.org/10.1007/s10596-018-9752-6

Shih, D. and G. T. Yeh

2018. Using a characteristic-based particle tracking method to solve one-dimensional fully dynamic wave flow. *Comput Geosci* (2018) 22:439–449 <https://doi.org/10.1007/s10596-017-9703-7>.

Sun, L., G. T. Yeh, and G. Zhao

Applications of quadrilateral and quadrilateral-prism mesh generation in overland and subsurface simulations. *Journal of Hydrology* 2017 (in press).

Sun, L., G. T. Yeh, X. Ma, F. P. Lin, and G. Zhao

Engineering applications of 2D and 3D finite element mesh generation in hydrogeology and water resources *Comput. Geosci* (2017) 21:733-758. DOI10.1007/s10596-017-9654-z

Yeh, G. T.

Physical-Based Mathematical Models for Soil and Groundwater Remediation.

Journal of Soil and Groundwater Remediation. Vol. 3, No. 4, pp. 229-259 (October 2016)

Sun, L., G. T. Yeh, F. P. Lin, and G. Zha

An automatic method for complete conversion of triangular mesh to quadrilateral mesh for with multiple domain geometry.

Terr. Atmos. Ocean. Sci., Vol. 27, No. 1, 139-152, February 2016, doi: 10.3319/TAO.2015.09.14.01(Hy)

Sun, L., G. T. Yeh, F. P. Lin, and G. Zha

Automatic quadrilateral mesh generation and quality improvement techniques for an improved combination method.

Computational Geosciences, DOI DOI 10.1007/s10596-015-9473-z, 2015.

C. I. Steefel, C. A. J. Appelo, B. Arora, D. Jacques, T. Kalbacher, O. Kolditz, V. Lagneau, P. C. Lichtner, K. U. Mayer, J. C. L. Meeussen, S. Molins, D. Moulton, H. Shao, J. Simunek, N. Spycher, S. B. Yabusaki, and G. T. Yeh

Reactive transport codes for subsurface environmental simulation.

Computational Geosciences, DOI 10.1007/s10596-014-9443-x, 2015.

Tsai, C. H. and G. T. Yeh

Multiphase Flow Modeling with Newly Proposed Saturation-Capillary Pressure Head Relations

Computational Geosciences (In preparation). , 2014.

Tsai, C. H. and G. T. Yeh

The Generality of Fractional-Flow Approach for Multiphase Flow Modeling

Journal of Hydrological Research (In Preparation), 2014.

Shih, D. S., C. H. Chen, and G. T. Yeh.

Improving our understanding of flood forecasting using earlier hydro-meteorological intelligence

Journal of Hydrology. 512: 470-481, 2014 (SCI).

研討會論文

Yeh, G. T.

Computational Fluid Dynamics with MMOC Approaches The 2nd International Conference on Mechanics (2018)

I-Lan, Taiwan, October 10-18, 2018.

Yeh, G. T.

Advances in Computational Models of Subsurface Media: Past, Present, and Future. The Tenth Conference of Groundwater Resources and Water Protection and 2018 Across-Straight Symposium on the Application of Groundwater and Hydrogeology

Jhongli, Taiwan, August 20-24, 2018.

Yeh, G. T.

Advances in Watershed Model-Development and Modelling.
National Chia-Yi University, Chi-Yi, October 23, 2017

Yeh, G. T.

Coupled THMC Processes in Nuclear Waste Management. Argonne National Laboratory, Chicago, August 10, 2017.

Yeh, G. T., C. H. Tsai, and R. T. Sung

Imbedded-Fracture Formulation of THMC Processes in Fractured Media.
AGU Fall Meeting. San Francisco, December 11-16, 2016

Yeh, G. T., C. H. Tsai, and R. T. Sung

Benchmarking of an Explicitly Coupled THMC Model with a Tailing Site. Subsurface Environmental Simulation Benchmarking Workshop V (SeS Bench V).
A Coruña, Spain, October 13-15, 2016

Yeh, G. T. and C. H. Tsai

Advances in Watershed Models and Modeling.
Abstract and Program, 2015 AGU Fall Meeting. San Francisco, December 14-18, 2015.

Yeh, G. T.

Advances in Computational Models of Subsurface Media: Past, Present, and Future. 4th International Conference on Earth Sciences and Climate Change.
Alicante, Spain, June 16-18, 2015.

Yeh, G. T. and C. H. Tsai

Advances in Watershed Models and Modeling.
Abstract and Program, 2015 AGU Fall Meeting, December 14-18, 2015.

Yeh, G. T. and C. H. Tsai

A Model to Couple Flow, Thermal and Reactive Chemical Transport, and Geo-mechanics in Variably Saturated Media.
Abstract and Program, 2015 AGU Fall Meeting, December 14-18, 2015.

Tsai, C. H. and G. T. Yeh

A Coupled Model of Multiphase Flow, Reactive Biogeochemical Transport, Thermal Transport and Geo-Mechanics.
Abstract and Program, 2015 AGU Fall Meeting, December 14-18, 2015.

Tsai, C. H., G. T. Yeh, and N. F. Ni

Innovative THMC Modeling for Environmental Remediation.
Abstract and Program, 2014 AGU Fall Meeting, December 15-19, 2015.

Yeh, G. T. and C. H. Tsai

Mixed Lagrangian-Eulerian and Eulerian Approach to Discretizing Richards' Equation.
Abstract and Program, 2014 AGU Fall Meeting, December 15-19, 2015.

Yeh, G. T. and C. H. Tsai

Simulation of Release and Transport of Uranium, Molybdate, Acidity, and the Changes in Major element Mineralogy from a Uranium Mill Tailings Pile.
Abstract and Program, SSBench IV. Chateau de Cadarache, France, October 6 - 8, 2014. pp. 43

Tsai, C. H. and G. T. Yeh

Benchmarking a THMC Process Problem with an Explicitly Coupling Model in Subsurface Media.
Abstract and Program, SSBench IV. Chateau de Cadarache, France, October 6 - 8, 2014. pp. 40

專書及專書論文

Avila, R., Bugai, D., Chen, J.S., Jacques, D., Kivva, S., Kovalets, I., H. Monken-Fernandes, Simunek, J., Yeh, G. T., Yu, C., and Zhu, M.

Mathematical Models for Assessing Remediation of Radioactively Contaminated Sites. International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. (in press), 2018.

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. HYDROGEOCHEM 4.1: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-mechanical Deformation through Saturated-Unsaturated Media - Version 4.1 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo, and M. H. Li. HYDROGEOCHEM 5.1: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-Mechanical Deformation through Saturated-Unsaturated Media - Version 5.1 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. 2018. HYDROGEOCHEM 5.2: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport with Gaseous Diffusion through Saturated-Unsaturated Media - Version 5.2 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan, 2018

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. 2018. HYDROGEOCHEM 4.2: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport with Gaseous Diffusion through Saturated-Unsaturated Media - Version 4.2 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan, 2018

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. HYDROGEOCHEM 5.3: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geo-Mechanical Deformation through Saturated-Unsaturated Media - Version 5.3 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan. 2018

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. HYDROGEOCHEM 4.3: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geo-mechanical Deformation through Saturated-Unsaturated Media - Version 4.3 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan. 2018

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. 2018. HYDROGEOCHEM 4.4: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-mechanical Deformation through Saturated-Unsaturated Media - Version 4.4 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report. National Central University, Zhongli, Taoyuan 32001, Taiwan, 2018

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo, and M. H. Li. 2018. HYDROGEOCHEM 5.4: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-Mechanical Deformation through Saturated-Unsaturated Media - Version 5.4 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation, Technical Report, National Central University, Zhongli, Taoyuan 32001, Taiwan, 2018

Avila, R., Bugai, D., Chen, J.S., Jacques, D., Kivva, S., Kovalets, I., H. Monken-Fernandes, Simunek, J., Yeh, G. T., Yu, C., and Zhu, M. Mathematical Models for Assessing Remediation of Radioactively Contaminated Sites. International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. (in press), 2018.

Avila, R., H. Monken-Fernandes, B. Newman, J. Simunek, G. T. Yeh, and C. Yu Mathematical Models for Assessing Remediation of Radioactively Contaminated Sites. International Atomic Energy Agency (IAEA), United Nations, Vienna, Austria. (in press), 2017.

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo, and M. H. Li.
HYDROGEOCHEM 5.4: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-Mechanical Deformation through Saturated-Unsaturated Media - Version 5.4 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li.
HYDROGEOCHEM 4.4: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport with Gaseous Phase Diffusion, and Geo-mechanical Deformation through Saturated-Unsaturated Media - Version 4.4 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li.
HYDROGEOCHEM 5.3: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geo-Mechanical Deformation through Saturated-Unsaturated Media - Version 5.3 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li.
HYDROGEOCHEM 4.3: A Coupled Model of Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geo-mechanical Deformation through Saturated-Unsaturated Media - Version 4.3 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li.
HYDROGEOCHEM 5.2: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport with Gaseous Diffusion through Saturated-Unsaturated Media - Version 5.2 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo., and M. H. Li. 2017. HYDROGEOCHEM 4.2: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport with Gaseous Diffusion through Saturated-Unsaturated Media - Version 4.2 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo, and M. H. Li.
HYDROGEOCHEM 5.1: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport through Saturated-Unsaturated Media - Version 5.1 (A Three-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T., C. H. Tsai, S. J. Jan, C. W. Kuo, S. H. Lai, W. J. Kuo, and M. H. Li.
HYDROGEOCHEM 4.1: A Coupled Model of Fluid Flow, Thermal Transport, and HYDROGEOCHEMical Transport through Saturated-Unsaturated Media - Version 4.1 (A Two-Dimensional Model). Theoretical Basis and Numerical Approximation. Technical Report.
National Central University, Zhongli, Taoyuan 32001, Taiwan. 2017

Yeh, G. T. and C. H. Tsai
HYDROGEOCHEM 7.1: A Three-Dimensional Model of Coupled Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geomechanics through Multiple Phase Systems Version 7.1 (A Three Dimensional THMC Processes Model). Theoretical Basis and Numerical Approximation . Technical Report.
Graduate Institute of Applied Geology, National Central University. Taiwan. DOI: 10.13140/RG.2.1.3339.1125. 2015

Yeh, G. T. and C. H. Tsai
HYDROGEOCHEM 6.1: A Two-Dimensional Model of Coupled Fluid Flow, Thermal Transport, HYDROGEOCHEMical Transport, and Geomechanics through Multiple Phase Systems Version 6.1 (A Two Dimensional THMC Processes Model). Theoretical Basis and Numerical Approximation. Technical Report.
Graduate Institute of Applied Geology, National Central University. DOI: 10.13140/RG.2.1.1766.2482