Dr. Matt Rowberry PhD FGS

Research Scientist

Department of Engineering Geology
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Research interests

- Developing novel sensors for near real time monitoring of fault displacements
- Implementing AI-driven data fusion and gap bridging for robust downstream analysis
- Unravelling exogenic and endogenic drivers of fault behaviour across time and space

Analytical tools

- ArcGIS: Geospatial analysis and spatial statistics
- R: Time series forecasting in the temporal and frequency domains
- Python: Signal processing, machine learning, and deep learning

Research outputs

- Publications: 35
- Chapters: 4
- Monographs: 1
- Utility models: 1
- Functional specimens: 1
- Prototypes: 2
- Software: 2
- h index: 15

Appointments and education

Research Scientist | Institute of Rock Structure & Mechanics, Czech Academy of Sciences, Prague, Czech Republic
January 2010 – present
Experienced Principal Investigator and collaborative researcher leading multidisciplinary projects that leverage cutting edge sensors and data analytics to advance our understanding of natural hazards

Postdoctoral Research | School of Geosciences, University of the Witwatersrand, Johannesburg, South Africa
January 2008 – December 2009
Topic: The tectonic and geomorphological evolution of southern Africa since the breakup of Gondwana
Host: Professor Terence McCarthy

Doctoral Research | Institute of Geography and Earth Sciences, University of Wales, Aberystwyth, United Kingdom
October 2003 – September 2007
Topic: The tectonic and geomorphological evolution of Wales since the opening of the North Atlantic
Supervisor: Professor Mark Macklin

Undergraduate Studies | Department of Geography, University of Liverpool, Liverpool, United Kingdom
October 2000 – June 2003
Geology and Physical Geography: First Class Honours

Dissertation: The influence of climate and tectonics on badland development in southern Spain
Supervisor: Professor Adrian Harvey

Grants

Title: Integrating artificial intelligence into landslide monitoring data processing and interpretation
Provider: Czech Academy of Sciences - Strategie AV21
Period: 2026-2027
Role: Professional colleague

Title: Integrating 3D contactless positioning systems into a comprehensive geophysical monitoring network in Taiwan
Provider: Academia Sinica and the Czech Academy of Sciences
Period: 2025-2026
Role: Professional colleague

Title: 3D contactless magnetoresistive positioning system
Provider: Technology Agency of the Czech Republic
Period: 2021-2022
Role: Professional colleague

Title: 3D fracture behaviour monitoring presented online in real time using Spinterference
Provider: British Cave Research Association
Period: 2019-2020
Role: Principal Investigator

Title: The construction of a global database of giant landslides on oceanic island volcanoes
Provider: International Program on Landslides
Period: 2016-2018
Role: Principal Investigator

Title: El Hierro megalandslide dynamics analysed using big data to predict the future behaviour of megalandslides on other volcanic islands
Provider: Grant Agency of the Czech Republic
Period: 2016-2018
Role: Professional colleague

Title: The development and optimisation of a prototype for the automated monitoring of three dimensional fracture movements
Provider: Technology Agency of the Czech Republic
Period: 2015-2017
Role: Principal Investigator

Publications

Baroň, I., Trčka, T., Čejka, J., Škarvada, P., Dolejška, D., Vassallo, R., Metral, L., Rowberry, M., Balek, J., Hartvich, F., 2025. Contactless laser positioning system for tracking three dimensional kinematic behaviour of rock slope fractures and active faults tested on a large rockslide in the Western Alps. Landslides, accepted.

Rowberry, M., Baroň, I., Trčka, T., 2025. Could caves hold the key to earthquake prediction? Cave Radio and Electronics Group Journal, v. 131, p. 21-24.

Mikluš, V., Trčka, T., Rowberry, M., Rogerson, M., 2025. Searching for muons in caves. Cave Radio and Electronics Group Journal, v. 129, p. 22-24.

Šuťjak, M., Melichar, R., Baroň, I., Chen, Y., Černý, J., Dong, J., Dušek, V., Hartvich, F., Klimeš, J., Kociánová, L., Nguyen, T., Opletal, V., Rowberry, M., Tseng, C., 2025. From oblique thrust to strike slip fault: progressive stages of an accretionary wedge development. Lithosphere, v. 2024, art. no. 182.

Rowberry, M., Trčka, T., Mikluš, V., 2023. Portable muon detectors tested at the British Cave Science Centre. Cave and Karst Science, v. 50, p. 113-118.

Baroň, I., Koktavý, P., Trčka, T., Rowberry, M., Stemberk, J., Balek, J., Plan, L., Melichar, R., Diendorfer, G., Macků, R., Škarvada, P., 2022. Differentiating between artificial and natural sources of electromagnetic radiation at a seismogenic fault. Engineering Geology, v. 311, art. no. 106912.

Rowberry, M., Gunn, J., 2022. Atmospheric pressure anomalies at the British Cave Science Centre triggered by catastrophic volcanic eruption in Tonga on 15 January 2022. Cave and Karst Science, v. 49, p. 14-18.

Baroň, I., Plan, L., Grasemann, B., Melichar, R., Mitrović, I., Rowberry, M., Scholz, D., 2022. Three large prehistoric earthquakes in the Eastern Alps evidenced by cave rupture and speleothem damage. Geomorphology, v. 408, art. no. 108242.

Gunn, J., Rowberry, M., Smith, A., 2021. Exploring the impact of tourists on cave air temperatures: a Covid-19 case study from Poole's Cavern, Derbyshire, UK. Cave and Karst Science, v. 48, p. 121-128.

Rowberry, M., Frontera, C., Baroň, I., Kučera, J., Křivánek, L., Martí, X., 2020. A novel positioning system for three dimensional fracture displacement monitoring in the British Cave Science Centre, Poole's Cavern, Buxton, Derbyshire. Cave and Karst Science, v. 47, p. 146-152.

Blahůt, J., Mitrović, I., Baroň, I., René, M., Rowberry, M., Blard, P., Hartvich, F., Meletlidis, S., 2020. Volcanic edifice slip events recorded on the fault plane of the San Andrés Landslide, El Hierro, Canary Islands. Tectonophysics, v. 776, art. no. 228317.

Blahůt, J., Balek, J., Klimeš, J., Rowberry, M., Kusák, M., Kalina, J., 2019. A comprehensive global database of giant landslides on volcanic islands. Landslides, v. 16, p. 2045-2052.

Rowberry, M., Dubois, C., Kaufmann, O., Baele, J., Blahůt, J., 2018. Weathering by dolomite dissolution responsible for the formation of an important palaeontological locality in the Prague Synform. Acta Geodynamica et Geomaterialia, v. 15, p. 297-309.

Blahůt, J., Baroň, I., Sokol, Ľ., Meletlidis, S., Klimeš, J., Rowberry, M., Melichar, R., García-Cañada, L., Martí, X., 2018. Large landslide stress states calculated following extreme climatic and tectonic events on El Hierro, Canary Islands. Landslides, v. 15, p. 1801-1814.

Blahůt, J., Klimeš, J., Rowberry, M., Kusák, M., 2018. Database of giant landslides on volcanic islands - first results from the Atlantic Ocean. Landslides, v. 15, p. 823-827.

Rinaldi-Montes, N., Rowberry, M., Frontera, C., Garcés, J., Baroň, I., Blahůt, J., Pérez-López, R., Pennos, C., Martí, X., 2017. A contactless positioning system for monitoring discontinuities in three dimensions with geological and geotechnical applications. Review of Scientific Instruments, v. 88, art. no. 074501.

Rowberry, M., Kriegner, D., Holý, V., Frontera, C., Llull, M., Olejník, K., Martí, X., 2016. The instrumental resolution of a moiré extensometer in light of its recent automatisation. Measurement, v. 91, p. 258-265.

Rowberry, M., Martí, X., Frontera, C., Van De Wiel, M., Briestenský, M., 2016. Calculating flux to predict future cave radon concentrations. Journal of Environmental Radioactivity, v. 157, p. 16-26.

Dubois, C., Deceuster, J., Kaufmann, O., Rowberry, M., 2015. A new method to quantify carbonate rock weathering. Mathematical Geosciences, v. 47, p. 889-935.

Briestenský, M., Rowberry, M., Stemberk, J., Stefanov, P., Vozár, J., Šebela, S., Petro, Ľ., Bella, P., Gaal, Ľ., Ormukov, C., 2015. Evidence of a plate wide tectonic pressure pulse provided by extensometric monitoring in the Balkan Mountains. Geologica Carpathica, v. 66, p. 427-438.

Briestenský, M., Thinová, L., Praksová, R., Stemberk, J., Rowberry, M., Knejflová, Z., 2014. Radon, carbon dioxide, and fault displacements in central Europe related to the Tōhoku Earthquake. Radiation Protection Dosimetry, v. 160, p. 78-82.

Dubois, C., Quinif, Y., Baele, J., Barriquand, L., Bini, A., Bruxelles, L., Dandurand, G., Havron, C., Kaufmann, O., Lans, B., Maire, R., Martin, J., Rodet, J., Rowberry, M., Tognini, P., Vergari, A., 2014. The process of ghost rock karstification and its role in the formation of caves. Earth-Science Reviews, v. 131, p. 116-148.

Tooth, S., McCarthy, T., Rodnight, H., Keen-Zebert, A., Rowberry, M., Brandt, D., 2014. Late Holocene development of a major fluvial discontinuity in floodplain wetlands of the Blood River, eastern South Africa. Geomorphology, v. 205, p. 128-141.

Briestenský, M., Stemberk, J., Rowberry, M., 2014. The use of damaged speleothems and in situ fault displacement monitoring to characterise active tectonic structures: an example from Západní Cave, Czech Republic. Acta Carsologica, v. 43, p. 129-138.

Rowberry, M., Battiau-Queney, Y., Walsh, P., Błażejowski, B., Bout-Roumazeilles, V., Trentesaux, A., Křížová, L., Griffiths, H., 2014. The weathered Carboniferous Limestone at Bullslaughter Bay, South Wales: the first example of ghost rock recorded in the British Isles. Geologica Belgica, v. 17, p. 33-42.

Martí, X., Rowberry, M., Blahůt, J., 2013. A MATLAB code for counting the moiré interference fringes recorded by the optical mechanical crack gauge TM-71. Computers & Geosciences, v. 52, p. 164-167.

Klimeš, J., Rowberry, M., Blahůt, J., Briestenský, M., Hartvich, F., Košťák, B., Rybář, J., Stemberk, J., Štěpančíková, P., 2012. The monitoring of slow moving landslides and assessment of stabilisation measures using an optical mechanical crack gauge. Landslides, v. 9, p. 407-415.

Rowberry, M., 2012. A comparison of three terrain parameters that may be used to identify denudation surfaces within a GIS: a case study from Wales, United Kingdom. Computers & Geosciences, v. 43, p. 147-158.

Rowberry, M., McCarthy, T., Thompson, M., Nomnganga, A., Moyo, L., 2011. The spatial and temporal characterisation of flooding within the floodplain wetland of the Nyl River, Limpopo Province, South Africa. Water SA, v. 37, p. 445-452.

Briestenský, M., Stemberk, J., Michalík, J., Bella, P., Rowberry, M., 2011. The use of a karstic cave system in a study of active tectonics: fault displacements recorded at Driny Cave, Malé Karpaty Mts (Slovakia). Journal of Cave and Karst Studies, v. 73, p. 114-123.

McCarthy, T., Tooth, S., Jacobs, Z., Rowberry, M., Thompson, M., Brandt, D., Hancox, P., Marren, P., Woodborne, S., Ellery, W., 2011. The origin and development of the Nyl River floodplain wetland: trunk-tributary river interactions in a dryland setting. South African Geographical Journal, v. 93, p. 172-190.

Briestenský, M., Thinová, L., Stemberk, J., Rowberry, M., 2011. The use of caves as observatories for recent geodynamic activity and radon gas concentrations in the Western Carpathians and Bohemian Massif. Radiation Protection Dosimetry, v. 145, p. 166-172.

Štěpančíková, P., Rowberry, M., 2008. Rock landforms that reflect differential relief development in the northeastern sector of the Rychlebské hory and the adjacent area of Žulovská pahorkatina (SE Sudeten Mts, Czech Republic). Acta Geodynamica et Geomaterialia, v. 5, p. 297-321.

Walsh, P., Battiau-Queney, Y., Howells, S., Ollier, C., Rowberry, M., 2008. The Gash Breccias of the Pembrokeshire Peninsula, SW Wales. Geology Today, v. 24, p. 137-145.

Rowberry, M., Brewer, P., Macklin, M., 2007. The number, form, and origin of subhorizontal surfaces in north Ceredigion, Wales, United Kingdom. Norwegian Journal of Geology, v. 87, p. 207-222.

Chapters

Baroň, I., Melichar, R., Sokol, Ľ., Rowberry, M., Plan, L., Stemberk, J., 2024. 3D active fault kinematic behaviour reveals rapidly alternating near surface stress states in the Eastern Alps. In: Goteti, R., Finkbeiner, T., Rajabi, M., Ziegler, M., Massiot, C. (eds.) Characterisation, Prediction, and Modelling of the Crustal Present Day In Situ Stresses. Geological Society, London, Special Publication, 546, p. 119-133.

Rowberry, M., Klimeš, J., Blahůt, J., Balek, J., Kusák, M., 2023. A global database of giant landslides on volcanic islands. In: Sassa, K., Konagai, K., Tiwari, B., Arbanas, Ž., Sassa, S. (eds.) Progress in Landslide Research and Technology, 1, p. 295-304.

Blahůt, J., Klimeš, J., Meletlidis, S., Balek, J., Rowberry, M., Baroň, I., 2023. A decade of monitoring and research on the San Andrés Megalandslide on El Hierro, Canary Islands, Spain. In: Malheiro, A., Fernandes, F., Chaminé, H. (eds.) Advances in Natural Hazards and Volcanic Risks. Springer, Cham, p. 65-70.

Blahůt, J., Rowberry, M., Balek, J., Klimeš, J., Baroň, I., Meletlidis, S., Martí, X., 2017. Monitoring giant landslide detachment planes in the era of big data analytics. In: Mikoš, M., Arbanas, Ž., Yin, Y., Sassa, K. (eds.) Advancing Culture of Living with Landslides. Springer, Cham, 333-340.

Monographs

Rowberry, M., 2007. The evolutionary geomorphology of Wales, United Kingdom. PhD Thesis. University of Wales, Aberystwyth: 300 pp.

Presentations

Nguyen, T., Baroň, I., Dong, J., Melichar, R., Hartvich, F., Klimeš, J., Černý, J., Šutjak, M., Kociánová, L., Dušek, V., Rowberry, M., Braucher, R., Goslar, T., Tseng, C., Chen, Y., Lin, C., Gao, J., 2025. Revealing hidden seismic histories: prehistoric landslides as indicators of palaeoearthquakes in the Outer Western Carpathians. European Geosciences Union General Assembly, Vienna, Austria.

Baroň, I., Čejka, J., Trčka, T., Škarvada, P., Vassallo, R., Mertal, L., Frontera, C., Rowberry, M., Balek, J., Stemberk, J., Hartvich, F., Blahůt, J., 2024. Advances and challenges of a high resolution 3D contactless fracture monitoring at unstable rock slopes: Aiguilles Rouges, Chamonix, France. Slope Tectonics Conference, Křtiny, Czech Republic.

Dušek, V., Melichar, R., Černý, J., Šutjak, M., Bárta, F., Baroň, I., Chen, Y., Dong, J., Hartvich, F., Hu, J., Klimeš, J., Kociánová, L., Nguyen, T., Rowberry, M., Tseng, C., 2024. Possibilities of utilising AMS in landslide accumulations. Slope Tectonics Conference, Křtiny, Czech Republic.

Nguyen, T., Baroň, I., Dong, J., Melichar, R., Hartvich, F., Klimeš, J., Černý, J., Šutjak, M., Kociánová, L., Dušek, V., Rowberry, M., Braucher, R., Goslar, T., Tseng, C., Chen, Y., Lin, C., Gao, J., 2024. Studying the possible mechanisms of under dip toppling in the Outer Western Carpathian Flysch Belt. Slope Tectonics Conference, Křtiny, Czech Republic.

Šutjak, M., Melichar, R., Baroň, I., Chen, Y., Černý, J., Dong, J., Dušek, V., Hartvich, F., Klimeš, J., Kociánová, L., Nguyen, T., Rowberry, M., Svoboda, J., Tseng, C., 2024. Large scale gravitational slope deformations attributed to progressive development of an accretionary wedge margin (Mikulov-Falkenstein Fault, Outer Western Carpathians). Slope Tectonics Conference, Křtiny, Czech Republic.

Baroň, I., Rowberry, M., Sokol Ľ., Melichar, R., Jelének, J., Grasemann, B., Plan, L., Mitrovic, I., Stemberk, J., 2024. What can we learn from active fault 3D microkinematic behaviour? Experience gained in the Eastern Alps in Europe. Taiwan-Czech Workshop on Slope and Active Tectonics, Tainan, Taiwan.

Melichar, R., Baroň, I., Rowberry, M., Jelének, J., Sokol, Ľ., Papí Isaba, M., Freudenthaler, C., Hausmann, H., Plan, L., Grasemann, B., Stemberk, J., Schultz, R., Bürgmann, R., 2024. Unusual fault kinematic behaviour and near surface crustal stress variations before and during an earthquake series in the Vienna Basin, Austria, in spring 2021. European Geosciences Union General Assembly, Vienna, Austria.

Nguyen, T., Baroň, I., Dong, J., Melichar, R., Hartvich, F., Klimeš, J., Černý, J., Šutjak, M., Kociánová, L., Dušek, V., Rowberry, M., Braucher, R., Goslar, T., Hu, J., Tseng, C., Chen, Y., Lin, C., 2024. Under dip toppling in the Outer Western Carpathians: insight into investigation of slope failures and implication of paleoseismic activity. European Geosciences Union General Assembly, Vienna, Austria.

Šutjak, M., Melichar, R., Baroň, I., Chen, Y., Černý, J., Dong, J., Dušek, V., Hartvich, F., Kociánová, L., Nguyen, T., Rowberry, M., Tseng, C., 2024. Progressive development of an accretionary wedge margin from oblique thrust to strike slip fault (Mikulov Fault, Outer Western Carpathians). European Geosciences Union General Assembly, Vienna, Austria.

Dušek, V., Melichar, R., Baroň, I., Chen, Y., Černý, J., Dong, J., Hartvich, F., Hu, J., Klimeš, J., Kociánová, L., Nguyen, T., Rowberry, M., Šutjak, M., Tseng, C., 2023. Unique under dip toppling predisposed by geological structures, Javorníky Mts., Outer Western Carpathians. Central European Tectonic Studies Group Meeting, Kazincbarcika, Hungary.

Melichar, R., Baroň, I., Chan, W., Chen, Y., Chung, L., Černý, J., Dong, J., Dušek, V., Hartvich, F., Klimeš, J., Kociánová, L., Lin, A., Rowberry, M., Šutjak, M., Tseng, C., 2023. Validation of two methods for studying the geometry of fault deformation and fault kinematics on the Chelungpu active fault, Taiwan. Central European Tectonic Studies Group Meeting, Kazincbarcika, Hungary.

Šutjak, M., Melichar, R., Baroň, I., Chen, Y., Černý, J., Dong, J., Dušek, V., Hartvich, F., Hu, J., Klimeš, J., Kociánová, L., Nguyen, T., Rowberry, M., Tseng, C., 2023. Geometry and kinematics of the Mikulov fault, Outer Western Carpathians, revealed by LiDAR, ERT, and deep seismic interpretation. Central European Tectonic Studies Group Meeting, Kazincbarcika, Hungary.

Rowberry, M., Klimeš, J., Blahůt, J., Balek, J., Kusák, M., 2022. A global database of giant landslides on volcanic islands. International Consortium on Landslides Conference, Kyoto, Japan.

Melichar, R., Baroň, I., Hartvich, F., Rowberry, M., Scholz, D., Bosák, P., Žák, K., Šutjak, M., Rajnoch, A., Černý, J., Kolařík, J., 2021. Stabilised accretion wedges – post thrust processes: a case study of subrecent tectonics from the Mikulov region, Outer Western Carpathians. International Workshop on Active Tectonics and Dating, Praz-sur-Arly, France.

Rowberry, M., Martí, X., Frontera, C., Baroň, I., 2019. Cave stability monitoring and its significance for environmental protection. BCRA Cave Science Symposium, Keyworth, United Kingdom.

Mitrović, I., Blahůt, J., René, M., Baroň, I., Rowberry, M., Hartvich, F., 2019. Frictional silica gel and cataclasite microstructures from shallow earthquakes on El Hierro, Canary Islands. European Geosciences General Assembly, Vienna, Austria.

Rowberry, M., 2018. Interdisciplinarity: a vision to move from nanomagnets to rocks. From Nano to Geo: Bridging Science and Industry, Prague, Czech Republic.

Rowberry, M., Baroň, I., Pérez-López, R., Garcés, J., Rinaldi-Montes, N., Frontera, C., Martí, X., 2018. Monitoring subterranean fault behaviour using a contactless positioning system. BCRA Cave Science Symposium, Bristol, United Kingdom.

Baroň, I., Sokol, Ľ., Melichar, R., Blahůt, J., Rowberry, M., 2017. Deciphering large deep seated gravitational slope deformation stress states in active tectonic settings using contemporary three dimensional fault slip data. Slope Tectonics Conference, Kyoto, Japan.

Blahůt, J., Rowberry, M., Rinaldi-Montes, N., Frontera, C., Klimeš, J., Balek, J., Kalinová, R., Kusák, M., Martí, X., 2017. Understanding the behaviour of megalandslide detachment planes in the era of big data processing. World Landslide Forum, Ljubljana, Slovenia.

Hokr, M., Havlová, V., Rukavičková, L., Rowberry, M., Žanda, L., Dědeček, P., Bárta, J., Petružálek, M., 2016. Monitoring in the Bedrichov Water Supply Tunnel. Radioactive Waste Repository Authority Annual Seminar, Liblice, Czech Republic.

Rowberry, M., Rinaldi-Montes, N., Baroň, I., Pennos, C., Pérez-López, R., Martí, X., 2016. 3D magnetoresistive sensors as a new tool for measuring deformation across geological discontinuities. Deutsche Geologische Gesellschaft – Geologische Vereinigung Annual Meeting, Innsbruck, Austria.

Rowberry, M., Martí, X., Frontera, C., Van De Wiel, M., Briestenský, M., 2016. Calculating flux to predict future cave radon concentrations and the significance of fault displacement monitoring. International Conference on Protection against Radon at Home and Work, Prague, Czech Republic.

Baroň, I., Koktavý, P., Stemberk, J., Macků, R., Trčka, T., Škarvada, P., Lenhardt, L., Meuers, B., Rowberry, M., Marti, X., Plan, L., Grasemann, G., Mitrović, I., 2016. Underground electromagnetic activity in two regions with contrasting seismicity. European Geosciences Union General Assembly, Vienna, Austria.

Rowberry, M., Martí, X., Stemberk, J., 2015. Installation of an automated fault displacement monitoring system at a geological test site in northern Bohemia. Advances in Active Tectonics and Speleotectonics, Vienna, Austria.

Stemberk, J., Rowberry, M., 2015. Slow aseismic fault slip recorded across Europe. Advances in Active Tectonics and Speleotectonics, Vienna, Austria.

Briestenský, M., Stefanov, P., Rowberry, M., 2014. The first results from new underground extensometric laboratories established in caves in Bulgaria. International Conference on Geographical Sciences and Education, Shumen, Bulgaria.

Rowberry, M., Briestenský, M., Marti, X., Frontera, C., 2014. The quantitative prediction of radon emanation based on data recorded at Driny Cave, Malé Karpaty Mountains, Slovakia. Tectonic Studies Group Annual Meeting, Cardiff, United Kingdom.

Rowberry, M., Hartvich, F., Blahůt, J., Marti, X., Briestenský, M., Valenta, J., Stemberk, J., Thinová, L., 2013. The study of microdisplacements in the shallow crust: results from a temporary subterranean geodynamic observatory in the Czech Republic. International Conference of Deformation Mechanics, Rheology, and Tectonics, Leuven, Belgium.

Rowberry, M., Battiau-Queney, Y., Błażejowski, B., Walsh, P., 2012. The nature and origin of the ghost rocks at Bullslaughter Bay, South Wales. Ghost Rock Karst Symposium, Hans-sur-Lesse, Belgium.

Rowberry, M., 2012. Project Esblygiad Cymru: a reinterpretation of the erosion and uplift history of Wales, United Kingdom. Czech Association of Geomorphologists Annual Meeting, Sokolov, Czech Republic.

Tooth, S., McCarthy, T., Rodnight, H., Keen-Zebert, A., Rowberry, M., Brandt, D., 2010. Geomorphological dynamics of southern African floodplain wetlands. Southern African Association of Geomorphologists Biennial Conference, Makhanda, South Africa.

Rowberry, M., McCarthy, T., Tooth, S., 2010. The late Mesozoic and Cenozoic development of southern Africa: geological and geomorphological evidence for widespread denudation and epeirogenic uplift. European Geosciences Union General Assembly, Vienna, Austria.

Tooth, S., McCarthy, T., Rodnight, H., Keen-Zebert, A., Rowberry, M., Brandt, D., 2010. Geomorphological dynamics of South African floodplain wetlands and the implications for management planning. Association of American Geographers Annual Meeting, Washington DC, United States of America.

Rowberry, M., McCarthy, T., Tooth, S., 2009. Widespread denudation and uplift within a passive continental margin: geological and geomorphological insights into the late Mesozoic and Cenozoic evolution of southern Africa. Out of Africa Meeting, Johannesburg, South Africa.

Rowberry, M., McCarthy, T., Tooth, S., 2009. Geomorphological insights into the post breakup morphogenic evolution of southern Africa. International Conference on Geomorphology, Melbourne, Australia.

Tooth, S., McCarthy, T., Rodnight, H., Keen-Zebert, A., Rowberry, M., Brandt, D., 2009. Morphological and sedimentary dynamics of a South African floodplain wetland: from channelled to unchannelled and back to channelled? International Conference on Fluvial Sedimentology, San Miguel de Tucumán, Argentina.

Rowberry, M., Macklin, M., Brewer, P., 2006. Cenozoic inheritance and the significance of ancient landforms as indicators of the long term geomorphic evolution of the Welsh Massif, United Kingdom. British Geomorphological Research Group Annual Conference, Loughborough, United Kingdom.

Rowberry, M., Macklin, M., Brewer, P., 2006. Combining geomorphology, geophysics, and computational evidence to elucidate the evolution of Cenozoic Wales, United Kingdom. Nordic Geological Winter Meeting, Oulu, Finland.

Rowberry, M., Macklin, M., Brewer, P., 2005. Crustal heterogeneity and long term landscape evolution: the Accumulative Geomorphic Evolution Model applied to Wales. "Recent Developments in the Geological History of the British Isles: a Tribute to Stuart McKerrow", Oxford University Museum of Natural History, United Kingdom.

Rowberry, M., Macklin, M., Brewer, P., 2004. Structural compartmentalisation and long term geomorphological landscape evolution: results from a DEM analysis of Wales. "Earth's Dynamic Surface: Catastrophe and Continuity in Landscape Evolution", Geological Society of London, United Kingdom.

Rowberry, M., Macklin, M., Brewer, P., 2004. Long term landscape evolution and drainage network development in Wales. "Tectonics, Climate, and Landscape Evolution in south-central England", British Geological Survey, United Kingdom.

Other results in R&D

Rowberry, M., Blahůt, J., Hartvich, F., Stemberk, J., Fučík, Z., Briestenský, M., Martí, X., Garcés, J., 2018. Prototype for the automatic monitoring of mutual displacements and angular rotations. Type of Result: Utility Model - No. 31 362 (RIV Identification Code: RIV/67985891:_____/18:00499818)

Rowberry, M., Martí, X., 2016. Software for the automatic processing of moiré interference patterns generated by the TM71. Type of Result: Software (RIV Identification Code: RIV/67985891:_____/16:00470424)

Rowberry, M., Martí, X., 2015. Communication protocol between the ADAS and the GEMS. Type of Result Software (RIV Identification Code: RIV/67985891:_____/15:00457347)

Rowberry, M., Martí, X., 2015. Design of robust packaging for the ADAS and the GEMS. Type of Result: Functional Specimen (RIV Identification Code: RIV/67985891:_____/15:00457336)

Rowberry, M., Martí, X., 2015. Design and fabrication of a prototype Automatic Data Acquisition System. Type of Result: Prototype (RIV Identification Code: RIV/67985891:_____/15:00457297)

Rowberry, M., Martí, X., 2015. Design and fabrication of a prototype Geophysical & Environmental Monitoring Station. Type of Result: Prototype (RIV Identification Code: RIV/67985891:_____/15:00457344)

Professional service

Advisory boards

Member of the Scientific Advisory Board for the 5th International Slope Tectonics Conference, 10-14 September 2024, Křtiny, Czech Republic

Peer reviewer

- Applied Radiation and Isotopes
- Earth-Science Reviews
- Engineering Geology
- Environmental Earth Sciences
- Environmental Science and Pollution Research
- Geoenvironmental Disasters
- Geomorphology
- Geological Magazine
- Global and Planetary Change
- International Journal of Speleology
- Journal of Environmental Radioactivity
- Natural Hazards
- South African Journal of Geology

- Surveys in Geophysics
- Tectonophysics

Professional memberships

- Fellow of the Geological Society of London
- Member of the British Cave Research Association