
DJORDJE GRUJIC – Professor

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PROFESSIONAL EXPERIENCE

- 2012 – present** *Full Professor*
Director UThHe (Noble Gas mass spectrometry laboratory)
Dalhousie University, Department of Earth Sciences (Halifax, Canada)
- 2016** *Visiting Professor*
Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 2015** *Herbette Visiting Professor*
University Lausanne, Institute of Earth Sciences (Lausanne, Switzerland)
- 2006 – 2007** *Blaustein Visiting Professor*
Stanford University, Department of Geophysics (Stanford, CA)
- 2000 – 2010** *Fellow*
The Canadian institute for advanced research (CIFAR)
- 2000 – 2012** *Associate Professor*
Director Analogue model deformation laboratory
Dalhousie University, Department of Earth Sciences (Halifax, Canada)
- 1999** *Visiting Professor*
Princeton University, Department of Geosciences (Princeton, NJ)
- 1996 – 2000** *Hochschulassistent (Assistant Professor)*
University of Freiburg, Geologisches Institut (Freiburg, Germany)
- 1992 - 1996** *Post Doctoral Fellow*
Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 1988 – 1992** *Graduate Research Assistant*
Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 1982 – 1987** *Researcher*
Serbian Institute of Geology (Belgrade, Yugoslavia)
- 1982 – 1988** *Assistant Lecturer*
University of Belgrade (Belgrade, Yugoslavia)

EDUCATION

- 1992** *Ph.D. in Structural Geology and Tectonics*
Swiss Federal Institute of Technology (ETH), Zürich, Switzerland.
- 1983** *B.Sc. in Geology*
University of Belgrade (Belgrade, Yugoslavia)

RESEARCH INTERESTS

Interaction between tectonics and surface processes: foreland fold-and-thrust belt morphology and kinematics, and their interaction with spatio-temporal variations in climate. Methods: Fieldwork, structural analyses, quantitative analyses of structures and landscape, paleoclimate proxy measurements, numerical modelling.

Exhumation processes: syn-convergent exhumation of lithospheric mantle and lower crustal rocks, localised ductile deformation, weakening by partial melting, deformation mechanisms. Methods: field mapping, petrofabric and crystallographic texture analysis, dating deformation, trace-element thermometry.

Seismotectonics: How do distributed and localized deformation interact and vary in space and time, from the surface to the upper mantle? How do flow in the deep crust and frictional processes in the seismogenic zone affect one another?

Research techniques: field mapping, analogue modelling, numerical modelling, sensitive high-resolution ion microprobe (SHRIMP), electron microprobe, secondary electron microscopy and electron backscatter diffraction (EBSD), Raman spectroscopy, EBSD, X-ray texture goniometer.

TEACHING APPOINTMENTS

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|---------------------|---|
| Last 6 years | Dalhousie University, Department of Earth Sciences (Halifax, Canada) <ul style="list-style-type: none"> ▪ EARTH 2002 Earth Materials ▪ EARTH 3140 Structural Geology ▪ EARTH 4400/5400 Metamorphism and Microtectonics (50%) ▪ EARTH 4350 Tectonics ▪ EARTH 4510/6250 Directed Readings ▪ EARTH 6400 Geochronology (20 %) |
| 2006 –2007 | Stanford University, Department of Geophysics (Stanford, CA) <ul style="list-style-type: none"> ▪ Tectonics of Tibet and the Himalaya |
| 1996 –2000 | University of Freiburg, Geologisches Institut (Freiburg, Germany) <ul style="list-style-type: none"> ▪ Structural Geology ▪ Collision Tectonics ▪ Field course in tectonics in Norway |
| 1992 - 1996 | Swiss Federal Institute of Technology (ETH), Zürich, Switzerland. <ul style="list-style-type: none"> ▪ Instructor in field courses and fieldtrips in the Alps ▪ Lecturer in short courses on Scanning Electron Microscopy. |
| 1988 - 1992 | Swiss Federal Institute of Technology (ETH), Zürich, Switzerland. <ul style="list-style-type: none"> ▪ Graduate Research Assistant responsible for courses in Structural Geology, Microfabrics, Geological Mapping and Remote Sensing. |
| 1984 - 1988 | University of Belgrade (Belgrade, Yugoslavia) <ul style="list-style-type: none"> ▪ Instructor in Structural Geology ▪ Instructor in field camps in Geological Mapping |

STUDENT SUPERVISING (LAST 6 YEARS)

- B.Sc.
 - Beth Cowan (2012)
 - Ella Goldberg (2012)

John Hirschmiller (2013)
 Svieda Ma (2014)
 Deirdre Mallyon (2014)
 Adi Saric (2014)

Emmaline Atherton (2015)
 Sarah McLeod (2018)

- M.Sc.
 Kyle Landry (2012-2014) – co-supervisor
 Mark Ahenda (2016-2018), Queen’s University, co-supervisor
 Yuqiu Zhao (2017-2019)
- Ph.D.
 Julia Singer (2013-2017) ETH Zurich, co-supervisor
 Yoann Jaquet (2013-2016) University of Lausanne, co-supervisor
 Gao Min (2015-2019), co-supervisor, host
- Post Doctoral Fellow
 Catherine Mottram (2016-2017)
- Ph.D. thesis external examiner: University Grenoble, France (2014), Dalhousie University (2014), University of Trømsø (2013), University Leeds (2015), Université Montpellier II (2015), Université de Lausanne (2016).

SERVICE

2014-present Associate Editor, *Tectonics*
2014-2016 Editorial board, *Lithosphere*
2008-2012 Editorial board, *Geology*
2006-2010 Editorial board, *Annales Géologiques de la Péninsule Balkanique*
1990-1992 Editorial Advisory board: *Galaksija* magazine (Belgrade)
1995-1997 IGCP (UNESCO) Project # 368 co-ordinator for Switzerland.
1987 Joint Editor of Geological Map of Yugoslavia.
 Federal Institute of Geology (Belgrade, Yugoslavia)

Convener and co-convener of symposia at a number of national and international conferences

Review of research grant applications, and fellowship and award nominations: J. S. Guggenheim Memorial Foundation (USA), Rockefeller Foundation (USA), Fonds zur Förderung der wissenschaftlichen Forschung (Austria), National Science Foundation (USA), Swiss National Science Foundation, National Geographic Society (USA), Natural Sciences & Engineering Research Council of Canada (NSERC), Czech Science Foundation, Jack Henderson Award (Canadian Tectonics Group), The World Academy of Sciences (TWAS).

Assessment of faculty positions: University Massachusetts; The University of Texas El Paso; Swiss National Science Foundation; Queen's University (Kingston, Canada), University of Toronto at Mississauga (Mississauga, Canada), Université Claude Bernard Lyon (France), University California Santa Barbara.

Review of manuscripts for over 30 international scientific journals.

UNIVERSITY SERVICE

2000-present University: Senate representative; Senate Honorary Degrees Committee. Faculty of Science: Chair of the tenure and promotion committee, Search Committee for Izaak Walton Killam Postdoctoral fellowship, Nominating committee, Travel grant committee. Faculty of Graduate Studies: PhD Defence Chair Panel. Department of Earth Sciences: member and chair of the Search Committees for faculty and technologists positions, Safety committee, Seminar co-ordinator.

AWARDS

2015-2020 *Carnegie Chair in Geology*
Department of Earth Sciences, Dalhousie University.

2010 *GSA Fellow*
Geological Society of America, Council

2007, 2018 *Explorer of the National Geographic Society*

2006 *Blaustein Visiting Professor*
Stanford University, Stanford, California

2005 *Jovan Zujovic medal*
Commemorating 125 years of Geology in Yugoslavia. University of Belgrade (Yugoslavia).

2003 *Professor of the Year*
Department of Earth Sciences, Dalhousie University.

2001 *Petro-Canada Young Innovator award*
Petro-Canada, Calgary, Canada.

1997 *Landeslehrpreis 1997*
Annual state award for teaching, Ministerium für Wissenschaft, Forschung, und Kunst. Stuttgart, Germany.

1991 *Best Presented Paper Award*
Tectonic Studies Group Meeting, Edinburgh, UK.

1980 *100-years of Geological School and Sciences*
Certificate of Merit for success in studies. University of Belgrade, Yugoslavia.

1978 *M. Petrovic-Alas medal*
Award for success in natural sciences. High School Becej, Yugoslavia

RESEARCH COVERAGE IN MEDIA:

- *THE LAST ENGLISHMEN. LOVE, WAR AND THE END OF EMPIRE* (DEBORAH BAKER, 2018). *Science consultant*.
- *INTERNATIONAL INNOVATION* (2013). *Geohazard-Climate connections*, June, pp. 53-55.
- INTERVIEW AT THE CTV CANADA AM, interview with Beverly Thomson: *L'Aquila Earthquake Trial*. (23 October 2012)
- INTERVIEW AT THE CBC NEWS, interview with Colleen Jones: *January 12, 2010, M 7.0 Earthquake in Haiti* (21 January, 2010)
- INTERVIEW AT THE CTV CANADA AM, interview with Beverly Thomson: *January 12, 2010, M 7.0 Earthquake in Haiti* (21 January, 2010)
- *CBS NEWS AT SIX* (27 APRIL 2006).

- *OUTFRONT* (DALHOUSIE UNIVERSITY, v.1. 2006);

PROFESSIONAL MEMBERSHIPS

- AGS Atlantic Geoscience Society
- AGU American Geophysical Union
- ClfAR Associate of The Canadian Institute for Advanced Research (2000-2010)
- GAC The Geological Association of Canada Atlantic
- GSA Geological Society of America
- IASTG International Association of Structural/Tectonic Geologists
- SGS Serbian Geological Society

LANGUAGES: English, French, German, Italian, Hungarian (mother tongue), Serbian (mother tongue), some Russian.

RESEARCH GRANTS (ONLY > \$ ~10,000)

Swiss National Science Foundation (co-applicant with Dr. Neil Mancktelow, ETH Zürich):

- 1992-1994: 104,000 SFr Postdoctoral fellowship.
- 1994-1996: 116,000 SFr Postdoctoral fellowship.

Deutsche Forschungsgemeinschaft (DFG), Germany:

- 1998-2001 “Analogue—thremomechanical modelling of ductile extrusion processes in collision orogens” ca. DM 172,000. (co-applicant with Prof. J. Behrmann)
- 1998-2001: “Analogue modelling of melt segregation in deforming rocks” ca. DM 160,000. (co-applicant with Prof. J. Behrmann)
- 1999-2000: “Tektonische Extrusion großer Gesteinsmassen in Hohen Himalaya von Bhutan: strukturgeologische und geochronologische Dokumentation”. DM 53,000. (sole applicant)

Dalhousie University, Halifax:

- 2000: CAN \$ 20,000 (start-up funds)

Natural Sciences & Engineering Research Council of Canada (NSERC)

- 2000-2004: “Ductile extrusion as an exhumation process” CAN \$ 152,200 (Discovery Grant).
- 2001: “Optical microscope and image analysis system for microtectonics” CAN \$ 46,000 (Equipment Grant).
- 2004-2009: “Ductile extrusion as an exhumation process” CAN \$ 178,050 (Discovery Grant).
- 2000: NOVA-PROBE: a new electron microprobe for Nova Scotia CAN \$ 1,194,857 (Major Installation Grant: co-applicant with Prof. B. Clarke et al.).
- 2003-2005: Materials Characterization Facilities: CAN \$ 453,000. Major Facilities Access Grant: co-applicant with M. A. White et al.).
- 2009-2013: “Coupling between crustal superstructure, infrastructure and surface processes: Test along the Himalayan orogenic front” CAN \$ 165,000 (Discovery Grant).
- 2014: “Drivers, Modulators and Hazards of Collisional Orogens” CAN \$ 29,000 (Discovery Grant).
- 2015: “Drivers and modulators of collisional tectonics and their impact on geohazards” CAN \$ 135,000 (Discovery Grant).

- 2017: “Laser ablation sampling system for ICP-MS Analysis” (co-applicant) CAN \$ 150,000 (Equipment Grant).

The Canada Foundation for Innovation (CFI), Canada.

- 2002: On-going New Opportunities Fund “Tectonic Exhumation and sedimentary basin modelling: Establishment and development of an analogue modelling laboratory. CAN \$ 194,772 (sole applicant).
- 2003: Operating Fund Awards “Tectonic Exhumation and sedimentary basin modelling: Establishment and development of an analogue modelling laboratory” CAN \$ 58.432 (sole applicant).

Atlantic Innovation Fund (AIF) through the Pan Atlantic Petroleum Systems Consortium (PPSC).

- 2003: “Sedimentary Basin Modelling: Establishment and Development of an Analogue Modelling Laboratory” CAN \$ 763.000 (PI, Grujic et al.)



National Geographic Society, Committee for Research & Exploration

- 2007: “The nature and efficiency of the coupling between erosion, climate and tectonics in an active orogen: the eastern Himalaya (Kingdom of Bhutan)” US \$ 24,000
- 2018: “Revealing the environmental history of the Himalayas based on the geological and biological archives of its caves” US \$ 10,000

PUBLICATIONS

GOOGLE SCHOLAR H-INDEX: 32; TOTAL NUMBER OF CITATIONS: 4540 (SINCE 1997)

* indicates student-authored paper,  indicates open access paper

- 62 **Grujic, D.**, Hetény, G., Cattin R., Baruah, S., *Benoit, A., Drugkpa, D., and *Saric, A. (2018) Stress transfer and connectivity between the Bhutan Himalaya and the Shillong Plateau. *Tectonophysics*. 744, 322–332, <https://doi.org/10.1016/j.tecto.2018.07.018> 
- 61 **Grujic, D.**, *Govin, G., Barrier, L., *Cowan, B., Coutand, I., Hren, M. T., and Najman, Y. (2018) Formation of a rain shadow: O and H stable isotope records in authigenic clays from the Siwalik Group in eastern Bhutan. *Geochemistry, Geophysics, Geosystems*. <https://doi.org/10.1029/2017GC007254>
- 60 *Govin, G., Najman, Y., Copley, A., Millar, I., van der Beek, P., Huyghe, P., **Grujic, D.**, and Davenport, J. (2018) Timing and mechanism of the rise of the Shillong Plateau in the Himalayan foreland. *Geology*. <https://doi.org/10.1130/G39864.1> 
- 59 *Stübner, K., **Grujic, D.**, Dunkl, I., Thiede, R., and Eugster, P. (2018) Pliocene episodic exhumation and the significance of the Munsiri thrust in the northwestern Himalaya. *Earth and Planetary Science Letter*, 481, 271-281, doi.org/10.1016/j.epsl.2017.10.036
- 58 *Jaquet, Y., Duretz, T., **Grujic, D.**, Masson, H., and Schmalholz, S. (2017) Formation of orogenic wedges and crustal shear zones by thermal softening, associated topographic evolution and application to natural orogens. *Tectonophysics*, <https://doi.org/10.1016/j.tecto.2017.07.021>
- 57 Diehl, T., *Singer, J., Hetényi, G., **Grujic, D.**, Clinton, J., Giardini, D., Kissling, E. and GANSSER Working Group. (2017) Seismotectonics of Bhutan: Evidence for segmentation of the Eastern

- Himalayas and link to foreland deformation. *Earth and Planetary Science Letters*, 471, 54-64. doi.org/10.1016/j.epsl.2017.04.038
- 56 *Singer, J., Obermann, A., Kissling, E., Fang, H., Hetényi, G., **Grujic, D.** (2017) Along-strike variations in the Himalayan orogenic wedge structure in Bhutan from ambient seismic noise tomography. *Geochemistry, Geophysics, Geosystems*, 18, 4, 1483-1498. DOI: 10.1002/2016GC006742.
- 55 *Stübner, K., Warren, C., Ratschbacher, L., Sperner, B., Kleeberg, R., Pfänder, J. and **Grujic, D.** (2017) Anomalously old biotite $^{40}\text{Ar}/^{39}\text{Ar}$ ages in the NW Himalaya. *Lithosphere*, doi:10.1130/L586.1.
- 54 **Grujic, D.**, Coutand, I., *Doon, M. and *Kellett D. A. (2017) Northern provenance of the Gondwana formation in the Lesser Himalayan Sequence: constraints from $^{40}\text{Ar}/^{39}\text{Ar}$ dating of detrital muscovite in Darjeeling-Sikkim Himalaya. *Italian Journal of Geosciences*, 136, 1, 15-27, doi: 10.3301/IJG.2015.28
- 53 Coutand, I., Barrier, L., *Govin, G., **Grujic, D.**, Dupont-Nivet, G., Najman, Y., Hoorn, C. (2016) Late Miocene-Pleistocene evolution of India-Eurasia convergence partitioning between the Bhutan Himalaya and the Shillong plateau: New evidences from foreland basin deposits along the Dungsam Chu section, Eastern Bhutan, *Tectonics*, 35, 12, 2963–2994, doi: 10.1002/2016TC004258.
- 52 *Landry, K. R., Coutand, I., Whipp Jr, D. M., **Grujic, D.**, Hourigan, J. K. (2016) Late Neogene tectonically driven crustal exhumation of the Sikkim Himalaya: Insights from inversion of multithermochronologic data. *Tectonics*, 35, 3, 833–859, doi: 10.1002/2015TC004102
- 51 *Stübner, K., **Grujic, D.**, Parrish, R. R., Roberts, N. M., Kronz, A., Wooden, J. and Ahmad, T (2014) Monazite geochronology unravels the timing of crustal thickening in NW Himalaya. *Lithos*, 210-211, 111–128, doi: 10.1016/j.lithos.2014.09.024
- 50 *Kellett, D., **Grujic, D.**, Mottram, C. and Mukul, M. (2014) Virtual field guide for the Darjeeling-Sikkim Himalaya, India. In: (Eds.) C. Montomoli, R. Carosi, R. Law, S. Singh, and S. Man Rai, *Geological field trips in the Himalaya, Karakoram and Tibet, Journal of the Virtual Explorer*, 47, paper 5, doi: 10.3809/jvirtex.2014.00344
- 49 *Hirschmiller, J., **Grujic, D.**, Bookhagen, B., Coutand, I., Huyghe, P., Mugnier, J.-L. and Ojha, T. (2014) What controls the growth of the Himalayan foreland fold-and-thrust belt. *Geology*, 42; 3; 247–250, doi:10.1130/G35057.1
- 48 Coutand, I., Whipp Jr., D. M., **Grujic, D.**, Bernet, M., Fellin, M. G., Bookhagen, B., *Landry, K. R., Ghalley, S. K. and Duncan, C. (2014) Geometry and kinematics of the Main Himalayan Thrust and Neogene crustal exhumation in the Bhutanese Himalaya derived from inversion of multithermochronologic data, *Journal of Geophysical Research: Solid Earth*, 119, 1446–1481, doi:10.1002/2013JB010891.
- 47 Clarke, B., **Grujic, D.**, McCuish*, K. L., Sykes*, J. C., Tweeddale*, F. M. (2013) Ring Schlieren: Description and Interpretation of Field Relations in the Halifax Pluton, South Mountain Batholith, Nova Scotia. *Journal of Structural Geology*. 51, 193-205, doi.org/10.1016/j.jsg.2013.01.009.
- 46 *Kellett, D.A., **Grujic, D.**, Coutand, I., Cottle, J. and Mukul, M. (2013) The South Tibetan

- detachment system, Sikkim Himalaya facilitates rapid cooling, not rapid exhumation. *Tectonics*, 32, 2, 252–270, doi:10.1002/tect.20014.
- 45 *Antolín, B., Schill, E., **Grujic, D.**, *Baule, S., Quidelleur, X., Appel, E., Waldhör, M. (2012) E-W extension and block rotation of the southeastern Tibet: Unraveling late deformation stages in the eastern Himalayas (NW Bhutan) by means of pyrrhotite remanences. *Journal of Structural Geology*, 42, 19-33.
- 44 Yan, D.-P., Zhou, M.-F., Robinson, P.T., **Grujic, D.**, Malpas, J., Kennedy, A. and Reynolds, P.H. (2012): Constraining the mid-crustal channel flow beneath the Tibetan Plateau: data from the Nielaxiongbo gneiss dome, SE Tibet, *International Geology Review*, 54, 6, 615-632.
- 43 *Kellett, D., and **Grujic, D.** (2012) New insight into the South Tibetan detachment system: Not a single progressive deformation. *Tectonics*, v. 31, TC2007, doi:10.1029/2011TC002957.
- 42 Warren, C. J., **Grujic, D.**, Cottle, J., Rogers, N. W. (2012) Constraining cooling histories: rutile and titanite chronology and diffusion modelling in NW Bhutan. *Journal of Metamorphic Geology*, 30, 2, 113–130, doi:10.1111/j.1525-1314.2011.00958.x.
- 41 **Grujic, D.**, Warren, C.J., Wooden, J. (2011) Rapid syn-convergent exhumation of Miocene-aged lower orogenic crust in the Eastern Himalaya. *Lithosphere*, 3, 5, 346-366. doi: 10.1130/L154.1.
- 40 *Long, S., McQuarrie, N., Tobgay, T., **Grujic, D.** and Hollister, L. (2011) Geologic Map of Bhutan, *Journal of Maps*, 7, 184-192. 10.4113/jom.2011.1159.
- 39 **Grujic, D.**, Stipp, M. and Wooden, J. L. 2011: Thermometry of Quartz Mylonites: Importance of dynamic recrystallization on Ti-in-quartz re-equilibration. *Geochemistry, Geophysics, Geosystems (G³)* 12, Q06012, doi:10.1029/2010GC003368.
- 38 Frehner, M., Exner, U., Mancktelow, N.S., and **Grujic, D.**, 2011: The not-so-simple effects of boundary conditions on models of simple shear, *Geology*, 39, 717–722, doi:10.1130/G31957.1.
- 37 *Long, S.P., McQuarrie, N., Tobgay, T., and **Grujic, D.** (2011) Geometry and crustal shortening of the Himalayan fold-thrust belt in Bhutan: *Geological Society of America Bulletin*, 123, 1427-1447, doi:10.1130/B30203.1
- 36 *Long, S.P., McQuarrie, N., Tobgay, T., Rose, C.V., Gehrels, G., and **Grujic, D.** (2011) Tectonostratigraphy of the Lesser Himalaya of Bhutan: Implications for the stratigraphic architecture of the northern Indian margin: *Geological Society of America Bulletin*, 123, 1406-1426, doi:10.1130/B30202.1
- 35 Warren, C. J., **Grujic, D.**, Kellett, D., Cottle, J., Jamieson, R. A., Ghalley, K.S. (2011) Probing the depths of the India-Asia collision: U-Th-Pb monazite chronology of granulites from NW Bhutan. *Tectonics*, 30, doi:10.1029/2010TC002738.
- 34 *Loiselet, C., J. Braun, L. Husson, C. Le Carlier de Veslud, C. Thieulot, P. Yamato, and **D. Grujic** (2010), Subducting slabs: Jellyfishes in the Earth's mantle, *Geochemistry, Geophysics, Geosystems (G³)* 11, Q08016, doi:10.1029/2010GC003172
- 33 *Kellett, D. A., **Grujic, D.**, Warren, C., Cottle, J., Jamieson, R. and Tenzin, T. (2010) Metamorphic history of a syn-convergent orogen-parallel detachment: The outer South Tibetan detachment system, eastern Himalaya. *Journal of Metamorphic Geology*, 28, 785-808.

doi:10.1111/j.1525-1314.2010.00893.x

- 32 *Chakungal, J. Dostal, J. **Grujic, D.**, Duchêne, S. and Ghalley, K. S. (2010) Provenance of the Greater Himalayan Sequence: evidence from mafic granulites and amphibolites in NW Bhutan. *Tectonophysics*, 480, 198-212.
- 31 *Kellett, D., **Grujic, D.**, Erdman, S. (2009) Miocene structural reorganization of the South Tibetan detachment, eastern Himalaya: Implications for continental collision. *Lithosphere*, 1, 5, 259-281.
- 30 McQuarrie, N., Robinson, D., Long, S., Tobgay, T., **Grujic, D.**, Gehrels, G. and Ducea, M.: (2008) Preliminary stratigraphic and structural architecture of Bhutan: Implications for the along strike architecture of the Himalayan system. *Earth and Planetary Science Letters*, 272, 105-117.
- 29 *Biswas, S., Coutand, I., **Grujic, D.**, Hager, C., Stöckli, D. and Grasemann, B.: (2007) Exhumation and uplift of the Shillong plateau and its influence on the eastern Himalayas: New constraints from apatite and zircon (U-Th-[Sm])/He and apatite fission track analyses. *Tectonics*, 26, TC6013, doi:10.1029/2007TC002125.
- 28 *Krzések, C., Adam, J., **Grujic, D.** (2007) Mechanics of fault and expulsion rollover systems developed on passive margins detached on salt: insights from analogue modelling and optical strain monitoring. In: Jolley, S. J., Barr, D., Walsh, J. J. & Knipe, R. J. (eds) *Structurally Complex Reservoirs*. Geological Society, London, Special Publications, 292, 103–121. DOI: 10.1144/SP292.6.
- 27 Velasco, A. A., Gee, V. L., Rowe, C. **Grujic, D.**, Hollister, L.S., Hernandez, D., Miller, K.C., Tobgay, T., Fort, M., and Harder, S. (2007): Using small, temporary seismic networks for investigating tectonic deformation: brittle deformation and evidence for strike-slip faulting in Bhutan. *Seismological Research Letters*, 78, 446-453.
- 26 **Grujic, D.**, Coutand, I., Bookhagen, B., Bonnet, S., Blythe, A. and Duncan, C. (2006): Climatic forcing of erosion, landscape and tectonics in the Bhutan Himalayas. *Geology*, 34, 801–804; doi: 10.1130/G22648.1.
- 25 Jamieson, R.A., Beaumont, C., Nguyen M.H. & **Grujic, D.** (2006) Provenance of the Greater Himalayan Sequence and associated rocks: Predictions of channel flow models. In: Law, R. D., Searle, M. P. & Godin, L. (eds) *Channel Flow, Extrusion, and Exhumation in Continental Collision Zones*. Geological Society, London, Special Publications, 268, 165–182.
- 24 Hollister, L. S. and **Grujic, D.** (2006) Pulsed channel flow in Bhutan. In: Law, R. D., Searle, M. P. & Godin, L. (eds) *Channel Flow, Extrusion, and Exhumation in Continental Collision Zones*. Geological Society, London, Special Publications, 268, 415–423.
- 23 Godin, L., **Grujic, D.**, Law, R. D. and Searle, M. P. (2006) Channel flow, extrusion, and exhumation in continental collision zones: an introduction. In: Law, R. D., Searle, M. P. & Godin, L. (eds) *Channel Flow, Extrusion, and Exhumation in Continental Collision Zones*. Geological Society, London, Special Publications, 268, 1-23.
- 22 **Grujic, D.** (2006) Channel flow and continental collision tectonics: an overview. In: Law, R. D., Searle, M. P. & Godin, L. (eds) *Channel Flow, Extrusion, and Exhumation in Continental Collision Zones*. Geological Society, London, Special Publications, 268, 25–37.

- 21 **Grujic, D.** (2006) Coupling between tectonics and surface processes: Linking mid-crustal channel flow and extrusion by focused surface erosion. *Comptes Rendus des Séances de la Société Serbe de Géologie*, Belgrade, pour les années 2004 et 2005, 41-50.
- 20 *Timar-Geng, Z, **Grujic, D.**, Rahn, M. (2004) Deformation at the Leventina-Simano nappe boundary, Central Alps, Switzerland. *Eclogae geologicae Helvetiae*, 97/2, 265-278.
- 19 Seward, D., **Grujic, D.**, Schreurs, G. (2004) An insight into the breakup of Gondwana: Identifying events through low-temperature thermochronology from the basement rocks of Madagascar. *Tectonics*, 23, TC3007, doi:10.1029/2003TC001556.
- 18 Daniel, C. G., Hollister, L. S., Parrish, R. R. & **Grujic, D.** (2003) Extrusion of the Main Central Thrust Zone from Lower Crustal Depths, Eastern Bhutan Himalaya. *Journal of Metamorphic Geology*. 21, 317-334.
- 17 Yemane, K., **Grujic, D.** & Nyambe, I. (2002) Paleohydrological Signatures and Rift Tectonics in the Interior of Gondwana Documented from Upper Permian Lake Deposits, the Mid-Zambezi Rift Basin, Zambia. In: *Sedimentation in Continental Rifts*. eds. Robin W. Renaut & Gail M. Ashley. *SEPM Special Publication*, 73, 143-162.
- 16 **Grujic, D.**, L.S. Hollister, L. S. & Parrish, R. R. (2002) Himalayan metamorphic core as an orogenic channel: insight from Bhutan. *Earth and Planetary Science Letters*. 198, 177-191.
- 15 **Grujic, D.**, *Walter, T. & Gärtner, H. (2002) Shape and structure of (analogue models of) refolded layers. *Journal of Structural Geology*. 24 (8), 1313-1326.
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SUBMITTED MANUSCRIPTS

- 1 **Grujic, D.**, Ashley, K. T., Coble, M. A., Coutand, I., Kellett, D. A., *Whynot, N. Inverted temperature fields: peak metamorphic and deformational temperatures across the Lesser Himalayan Sequence. *Tectonics*.

CONFERENCE ABSTRACTS (LAST 6 YEARS)

- A142 Coutand, I., **Grujic D.**, Whipp Jr. D.M., Bernet M., Fellin M.G., Landry K. and McQuarrie N. (2012) Deformation and exhumation of the Bhutan Himalaya derived from the inversion of thermochronologic and thermometric data. *Geophysical Research Abstracts*. 14, EGU2012-10200, European Geosciences Union General Assembly 2012, Vienna, Austria, 22 – 27 April 2012
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- A149 Landry K.R., Coutand I., Whipp Jr. D.M., and **Grujic D.** (2014) Late Miocene-present exhumation kinematics of the Sikkim Himalaya derived from inversion of zircon (U-Th)/He and apatite fission-track ages using 3-D thermokinematic modelling. Thermo2014, Chamonix (France), 8-12 September 2014.
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- A152 Whipp Jr. D.M., Coutand I., Bookhagen B., and **Grujic D.** (2016). Interpreting short and long-term records of tectonic and erosional processes using detrital thermochronology: An example from the Bhutan Himalaya. 2015 Fall Meeting, AGU, San Francisco, 14-18 December 2015
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- A154 Diehl, T., Singer, J., Hetényi, G., **Grujic, D.**, Clinton, J., and Kissling, E. (2016) The seismic gap of Bhutan: New evidence for segmentation of the eastern Himalayas and its link to foreland deformation. In: The 2016 Himalayan-Karakorum-Tibet Workshop, Aussois, France, 9-12 May, 2016.
- A155 **Grujic, D.** (2016) Inverted, telescoped and superposed metamorphic sequences: Peak temperature structure of the eastern Himalaya. In: 26th Goldschmidt Conference, 26 June—1 July 2016, Yokohama, Japan.
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- A158 Coutand, I., Whipp Jr., D.M., **Grujic D.** and Landry, K. (2016) Late Neogene tectonically driven crustal exhumation of the eastern Himalaya (Sikkim and Bhutan) derived from inversion of low-temperature multithermochronologic data. In: *Canadian Tectonics Group, 36th Annual meeting*, Bracebridge, Ontario, Canada, 21-23 October, 2016.
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- A160 King, G.E., **Grujic, D.**, Coutand, I., and Herman, F. (2016) Very low temperature OSL-thermochronometry applied to the Siwalik deposits in Nepal and Bhutan. 14th Swiss Geoscience Meeting. 18 and 19 November 2016. Geneva, Switzerland.
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- A162 Mottram C., **Grujic D.**, Bhattacharyya K., Coutand I. (2016) Direct dating of fault slip in the Himalayan orogen. Abstract T43D-3076 presented at 2016 Fall Meeting, AGU, San Francisco, 12-16 December 2016..
- A163 INVITED Whipp Jr. D.M., Coutand I., Bookhagen B., and **Grujic D.** (2016) Interpreting records of tectonic and erosional processes using detrital thermochronology: An example from the Bhutan Himalaya. Abstract T42B-05: presented at 2016 Fall Meeting, AGU, San Francisco, 12-16 December 2016.
- A164 Diehl, T., Singer, J., Hetényi, G., **Grujic, D.**, Clinton, J., Giardini, D., and Kissling E. (2017) Seismotectonics of Bhutan: Evidence for segmentation of the Eastern Himalayas and link to foreland deformation. Abstract EGU2017-14934, TS7.8 presented at the *European Geosciences Union General Assembly 2017* Vienna (Austria) 23–28 April 2017.

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- A167 **Grujic, D.**, Ashley, K.T., Coble, M.A., Coutand, I., Kellett, D.A. and Whynot, N. (2017) Inverted temperature fields: role of progressive deformation (2017) Re-interpretation of the INDEPTH deep seismic profiles (Himalaya). *21st International Conference on Deformation Mechanisms, Rheology and Tectonics*. Inverness, Scotland. 30 April–4 May 2017.
- A168 **Keynote talk: Grujic, D.**, Jaquet, Y., Duretz, T., Masson, H. and Schmalholz, S.M. (2017) Self-consistent shear zone formation with applications to thermochronological dataset interpretation. *2017 Annual meeting of the Geological Association of Canada*. 14-18 May 2017, Kingston, Ontario.
- A169 Coutand, I., Barrier, L., Govin, G., **Grujic, D.**, Hoorn, C., Dupont-Nivet, G. and Najman, Y. (2017) Late Miocene-Pleistocene evolution of India-Eurasia convergence partitioning between the Bhutan Himalaya and the Shillong plateau. *2017 Annual meeting of the Geological Association of Canada*. 14-18 May 2017, Kingston, Ontario.
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- A171 Mottram C., **Grujic D.**, Bhattacharyya K., Coutand I. (2017) Direct dating of fault slip in the Himalayan orogen. Abstract 06a presented at the *27th Goldschmidt Conference*, 13-18 August. Paris, France.
- A172 **Invited:** King, G.E., **Grujic, D.**, Coutand, I. and Herman, F. (2017) Very low-temperature luminescence thermochronometry of feldspar applied to the Siwalik Hills. Abstract 21f presented at the *27th Goldschmidt Conference*, 13-18 August. Paris, France.
- A173 **Keynote talk:** Grujic, D., Coutand, I., Jaquet, Y., Duretz, T., Masson, H. and Schmalholz, S. M. (2017) Self-consistent shear zone formation with applications to thermochronological dataset interpretation. *13th Workshop on Alpine Geological Studies, Émile Argand Conference (EGU Series) Zlatibor, Serbia*, 7-18 September 2017, pp. 41.
- A174 Mottram, C., **Grujic, D.** and Coutand, I. (2018) Using U-Pb calcite dating to directly-date continental-scale faults. *Geophysical Research Abstracts*, Vol. 20, EGU2018-14685 presented at the *European Geosciences Union General Assembly 2018* Vienna (Austria).
- A175 Hetényi, G., Cattin, R., **Grujic, D.**, Berthet, T., Diehl, T., Project GANSSER Working Group, Project BHUTANEPAL Working Group (2018) Characterization of the complex 3D structure and deformation pattern in the eastern third of the Himalaya. *Geophysical Research Abstracts*, Vol. 20, EGU2018-14591 presented at the *European Geosciences Union General Assembly 2018* Vienna (Austria).
- A176 **Grujic D**, Hetényi G, Cattin R, Baruah S, *Benoit A, Drukpa D, *Saric A. (2018) Stress transfer and connectivity between the Bhutan Himalaya and the Shillong Plateau. *33rd Himalaya-Karakorum-Tibet workshop*, 10-12 September 2018, Lausanne, Switzerland
- A177 **Grujic D**, *Govin G, Barrier L, Bookhagen B, Coutand I, *Cowan B, Hren M, Najman Y (2018) Formation of a rain shadow: O and H stable isotope records in authigenic clays from the Siwalik Group in Eastern Bhutan *33rd Himalaya-Karakorum-Tibet workshop*, 10-12 September 2018, Lausanne, Switzerland
- A178 **Grujic D**, Ashley K, Coble M, Coutand I, Kellett D, Larson K, Whipp D, *Whynot N (2018) Inverted temperature fields: Peak metamorphic and deformational temperatures across the Lesser Himalayan Sequence. *33rd Himalaya-Karakorum-Tibet workshop*, 10-12 September 2018, Lausanne, Switzerland
- A179 Coutand I, Barrier L, *Govin G, **Grujic D**, Hoorn C, Dupont-Nivet G, Najman Y. (2018) Late Miocene-Pleistocene evolution of India-Eurasia convergence partitioning between the Bhutan Himalaya and the Shillong Plateau: New evidences from foreland basin deposits along the Dungsam Chu section, Eastern Bhutan. *33rd Himalaya-Karakorum-Tibet workshop*, 10-12 September 2018, Lausanne, Switzerland
- A180 Diehl T, * Singer J, Hetényi G, **Grujic D**, Clinton J, Giardini D, Kissling E. (2018) Seismotectonics of Bhutan and its foreland: New insights from the GANSSER passive seismic experiment. *33rd Himalaya-Karakorum-Tibet workshop*, 10-12 September 2018, Lausanne, Switzerland

RECENT INVITED TALKS

23. 11. 2015: *Inverted temperature sequences: role of deformation partitioning*. Faculty of Geosciences and Environment. University Lausanne, Switzerland.
02. 12. 2015: *Inverted temperature sequences: role of deformation partitioning*. Laboratoire de Géologie de Lyon: Terre, Planètes et Environnement. Université Claude Bernard, Lyon1, France
25. 02. 2016: *Goldilocks zone of the interaction between tectonic and surface processes*. Earth Surface Dynamics seminar series. ETH Zürich, Switzerland
02. 03. 2016: *Inverted temperature sequences: role of deformation partitioning*. Structural Geology and Tectonics Seminar. ETH Zürich, Switzerland
01. 04. 2016: *Rapid synconvergent exhumation of the eclogitic lower crust in the eastern Himalaya*. Seismology and Geodynamics Seminar. ETH Zürich, Switzerland
12. 04. 2017: *Inverted temperature fields: role of progressive deformation*. Indian Institute of Technology Roorkee, Roorkee, India.