**List of scientific or artistic achievements which present a major contribution to the development of a specific discipline**

I. INFORMATION ON SCIENTIFIC OR ARTISTIC ACHIEVEMENTS SET OUT IN ART. 219 PARA 1. POINT 2 OF THE HIGHER EDUCATION AND SCIENCE ACT DATED 20 JULY 2018 (POLISH JOURNAL OF LAWS OF 2018 ITEM 1668, AS AMENDED)

2. Cycle of six scientific articles related thematically, pursuant to art. 219 para 1. point 2b of the Act, entitled "Numerical modelling of the development of selected ductile deformation structures under simple, pure and combined shear"

A1. Exner U., **Dabrowski M.** Monoclinic and triclinic 3D flanking structures around elliptical cracks (2010) *Journal of Structural Geology*, 32 (12), 2009-2021

| Citation count: 17(12)* | Impact Factor: 1,911** | MNSiW points: 32(100)*** |
|---|---|---|

* citation count, excl. autocitations in brackets
** 5-year IF in the publication year
*** MNSiW points in the publication year, in brackets points according to the 2019 point list

*My contribution to the publication included:*

*(1) designing numerical simulations, (2) deriving analytical expressions describing the velocity field around an elliptical slip surface, (3) implementing and optimizing the numerical code capable of simulating the development of three dimensional deformation structures around rotating slip surfaces in shear zones, (4) deriving novel analytical expressions, including the evolution of the relative offset along the slip surface in the limiting 2D case, (5) performing numerical simulations and selecting and analysing their results, (6) presenting numerical results in graphical form, (7) discussing the results, (8) participating in manuscript preparations, (9) participating in the revision and final editing of the article*

A2. **Dabrowski M.**, Grasemann B. Domino boudinage under layer-parallel simple shear (2014) *Journal of Structural Geology*, 68, 58-65

| Citation count : 20(18) | Impact Factor: 2,884 | MNSiW points: 30(100) |
|---|---|---|

*My contribution to the publication included:*

*(1) conception of the work and design of the methodology, (2) adjusting own numerical codes based on the finite element method to periodic models, (3) performing systematic numerical simulations, (4) numerical result analysis, (5) presenting numerical results in graphical form, (6) discussion and interpretation of the results, particularly in the context of the kinematic analysis of shear strain magnitude, (7) preparing the manuscript (excluding the chapter on natural examples), (8) revision of the article and final editing.*

A3. Grasemann B., **Dabrowski M.** Winged inclusions: Pinch-and-swell objects during high-strain simple shear (2015) *Journal of Structural Geology*, 70, 78-94

| Citation count: 13(12) | Impact Factor: 2,084 | MNSiW points: 35(100) |
|---|---|---|

*My contribution to the publication included:*

*(1) participation in conceptual work and design of the methodology, (2) adjusting own numerical codes based on the finite element method to non-linear materials, (3) performing systematic numerical simulations, (4) designing and implementing tools to automatically analyse numerical results, (5) numerical result analysis, (6) presenting numerical results in graphical form (figures and animations), (7) participation in discussion of the results, (8 preparing some parts of the manuscript and commenting on the rest of the manuscript, (9) participation in the revision of the article*

A4. Adamuszek M., **Dabrowski M.** Sheath fold development in monoclinic shear zones (2017) *Terra Nova*, 29 (6), 356-362

| Citation count: 2(1) | Impact Factor: 2,229 | MNSiW points: 35(100) |
|---|---|---|

*My contribution to the publication included:*

*(1) research concept of studying the impact of general shear on the morphology of sheath fold developing around slip surfaces, (2) participation in literature study, (3) numerical code preparation and optimization for calculating structure evolution around slip surfaces under general shear, (4) participation in the development of unique initial model configurations for general shear conditions, (5) result analysis and discussion, (6) participation in the preparation of the manuscript and the final revision of the article*

A5. Grasemann B., **Dabrowski M.**, Schöpfer M.P.J. Sense and non-sense of shear reloaded (2019) *Journal of Structural Geology*, 125, 20-28

| Citation count: 4(3) | Impact Factor: 3,128 | MNSiW points: 100(100) |
|---|---|---|

*My contribution to the publication included:*

*(1) participation in discussions on the conception of work, (2) numerical code preparation and performing numerical simulations, (3) preparing numerical result presentation in graphical form, including supplementary animations, (4) participation in result analysis and discussion, (5) preparing the manuscript fragment about finite element modelling, (6) commenting on the manuscript, (7) participation in the revision of the article*

A6. **Dabrowski M.**, Grasemann B. Numerical modelling of boudinage under pure shear: implications for estimating viscosity ratios and finite strain from natural examples (2019) *Journal of Structural Geology*, 126, 109-128

| Citation count: 1(1) | Impact Factor: 3,128 | MNSiW points: 100(100) |
|---|---|---|

*My contribution to the publication included:*

*(1) conception of the work and design of the methodology, (2) literature study, (3) preparation of numerical tools, (4) performing systematic numerical simulations, (5) numerical results analysis and selection, (6) designing the method of estimating strain and rheological parameters based on the detailed geometric analysis of boudins, bow-tie veins, and scar-folds, (7) preparing numerical result presentation in graphical form, (8) discussing the results in the light of the previous research, (9) preparing the manuscript (excluding the chapter on natural examples), (10) revision of the article and final editing*

II. INFORMATION ON SCIENTIFIC OR ARTISTIC ACTIVITY

1. List of published scientific monographs (including the monographs not mentioned in section I.1).

N/A

2. List of published chapters in scientific monographs.

Jarosiński, M., **Dabrowski, M.** Rheological models of the lithosphere across the Trans-European suture Zone in northern and western part of Poland [*Modele reologiczne litosfery w poprzek szwu transeuropejskiego w północnej i zachodniej części Polski*]. A chapter in the monograph: „*Budowa litosfery centralnej i północnej Polski – obszar projektu sejsmicznego POLONAISE'97*" ed. Jarosiński M. & Krzywiec P. Prace PIG, 2006, 188

*I have contributed with thermal and rheological models, using both the theoretical and numerical approaches. The chapter was published prior to obtaining my PhD degree.*

3. Information about membership in editorial boards preparing scientific monographs for publication.

N/A

4. List of articles published in scientific journals (including the articles not mentioned in section I.2).

JCR indexed publications (the publication belonging to the presented cycle, already listed in section I.2, are underlined; the articles published prior to obtained my PhD degree or directly related to my PhD project are denoted with an asterisk):

1) Trzeciak M., **Dabrowski M.**, Jarosiński M. Stress distribution models in layered, viscoelastic sedimentary basins under tectonic and glacial loads (2020) *Geophysical Journal International*, 220(2), 768–793

*I took part in developing the research concept, I supervised the development and application of mechanical models, participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

2) Adamuszek M., **Dabrowski M.** Sinking of a fragmented anhydrite layer in rock salt (2019) *Tectonophysics*, 766, 40-59

*I contributed to the development of the mechanical model of sinking inclusions, I participated in the analysis and discussion of the numerical simulation results, and I also took part in the preparation of the manuscript.*

3) **Dabrowski M.**, Grasemann B. Numerical modelling of boudinage under pure shear: implications for estimating viscosity ratios and finite strain from natural examples (2019) *Journal of Structural Geology,* 126, 109-128

*My contribution was already described in section I.2.*

4) Zhong X., Andersen N.H., **Dabrowski M.**, Jamtveit B. Zircon and quartz inclusions in garnet used for complementary Raman thermobarometry: application to the Holsnøy eclogite, Bergen Arcs, Western Norway (2019) *Contributions to Mineralogy and Petrology,* 174, 50

*I contributed to the development of the mechanical model of residual stresses in microinclusions, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

5) Souche A., Galland O., Haug Ø.T., **Dabrowski M.** Impact of host rock heterogeneity on failure around pressurized conduits: Implications for finger-shaped magmatic intrusions (2019) *Tectonophysics,* 765, 52-63

*I contributed to the development of the numerical tool used to simulate the process of plastic yielding, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

6) Olkowicz M., **Dabrowski M.**, Pluymakers A. Focus stacking photogrammetry for micro-scale roughness reconstruction: a methodological study (2019) *The Photogrammetric Record,* 34, 11-35

*I took part in developing the research concept, I contributed to the development of some of the analysis tools, I participated in the analysis and discussion of the results, and in preparation of the manuscript.*

7) Grasemann B., **Dabrowski M.,** Schöpfer M.P.J. Sense and non-sense of shear reloaded (2019) *Journal of Structural Geology,* 125, 20-28

*My contribution was already described in section I.2.*

8) Zhong X., **Dabrowski M.**, Jamtveit B. Analytical solution for the stress field in elastic half space with a spherical pressurized cavity or inclusion containing eigenstrain (2019) *Geophysical Journal International,* 216(2), 1100-1115

*I took part in developing the research concept and the analytical model, I participated in the analysis and discussion of the results, and in preparation of the manuscript.*

9) Trzeciak M., Sone H., **Dabrowski M.** Long-term creep tests and viscoelastic constitutive modeling of lower Paleozoic shales from the Baltic Basin, N Poland (2018) *International Journal of Rock Mechanics and Mining Sciences,* 112, 139-157

*I took part in developing the rheological model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

10) Cornet J.S., **Dabrowski, M.** Nonlinear Viscoelastic Closure of Salt Cavities (2018) *Rock Mechanics and Rock Engineering,* 51(10), 3091-3109

*I supervised the development of the numerical tools and the analytical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

11) Dzikowski M., Jasinski L., **Dabrowski M.** Depth-averaged Lattice Boltzmann and Finite Element methods for single-phase flows in fractures with obstacles (2018) *Computers & Mathematics with Applications,* 75(10), 3453-3470

*I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

12) Cornet J., **Dabrowski M.**, Schmid D. W. Long term creep closure of salt cavities (2018) *International Journal of Rock Mechanics and Mining Sciences*, 103, 96-106.

*I took part in developing the research concept and the mechanical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

13) Jasinski L., **Dabrowski M.** The effective transmissivity of a plane-walled fracture with circular cylindrical obstacles (2018) *Journal of Geophysical Research: Solid Earth*, 123, 242-263

*I took part in developing the research concept, numerical tools, and analytical solutions, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

14) Adamuszek M., **Dabrowski M.** Sheath fold development in monoclinic shear zones (2017) *Terra Nova*, 29(6), 356-362

*My contribution was already described in section I.2. .*

15) Adamuszek M., **Dabrowski M.** Sheath folds as a strain gauge in simple shear (2017) *Journal of Structural Geology*, 102, 21-36

*I took part in developing numerical tools, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

16) Cornet, J., **Dabrowski, M.** Schmid, D.W. Long term cavity closure in non-linear rocks (2017) *Geophysical Journal International*, 210(2), 1231-1243

*I took part in developing the research concept, I supervised the development of the mechanical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

17) Thøgersen K., **Dabrowski M.** Mixing of the fluid phase in slowly sheared particle suspensions of cylinders (2017) *Journal of Fluid Mechanics*, 818, 807-837

*I took part in developing the research concept, I supervised the development of the numerical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

18) Adamuszek M., **Dabrowski M.**, Schmid D.W. Folder: A numerical tool to simulate the development of structures in layered media (2016) *Journal of Structural Geology*, 84, 85-101.

*I developed the numerical tools for non-linear problems, and I provided my comments to the manuscript.*

19) Thøgersen K., **Dabrowski M.**, Malthe-Sørenssen A. Transient cluster formation in sheared non-Brownian suspensions (2016) *Physical Review E - Statistical, Nonlinear, and Soft Matter Physics,* 93 (2), 022611

*I supervised the development of the numerical tools and the analytical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

20) Mulyukova E., Steinberger B., **Dabrowski M.**, Sobolev S.V. Survival of LLSVPs for billions of years in a vigorously convecting mantle: Replenishment and destruction of chemical anomaly (2015) *Journal of Geophysical Research B: Solid Earth*, 120(5), 3824-3847

*I supervised the development of the numerical tools for simulating mechanical convection, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

21) Grasemann B., **Dabrowski M.** Winged inclusions: Pinch-and-swell objects during high-strain simple shear (2015) *Journal of Structural Geology*, 70, 78-94

*My contribution was already described in section I.2.*

22) **Dabrowski M.**, Powell R., Podladchikov Y. Viscous relaxation of grain-scale pressure variations (2015) *Journal of Metamorphic Geology*, 33 (8), 859-868

I developed the research concept and the analytical model of non-linear viscous relaxation, together with an exemplar application to petrological systems, and I prepared the manuscript.

23) **Dabrowski M.**, Grasemann B. Domino boudinage under layer-parallel simple shear (2014) *Journal of Structural Geology*, 68, 58-65

*My contribution was already described in section I.2.*

24) Souche A., **Dabrowski M.**, Andersen T.B. Modeling thermal convection in supradetachment basins: Example from western Norway (2014) *Geofluids*, 14(1), 58-74

*I supervised the development of the numerical tools for simulating porous convection, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

25) Souche A., Medvedev S., Andersen T.B., **Dabrowski M.** Shear heating in extensional detachments: Implications for the thermal history of the Devonian basins of W Norway (2013) *Tectonophysics*, 608, 1073-1085

*I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

26) Adamuszek M., **Dabrowski M.**, Schmid D.W. Interplay between metamorphic strengthening and structural softening in inclusion-bearing layered rocks (2013) *Terra Nova*, 25(5), 381-386

*I took part in developing the research concept and the numerical tools, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

27) Krotkiewski M., **Dabrowski M.** Efficient 3D stencil computations using CUDA (2013) *Parallel Computing*, 39(10), 533-548

*I took part in developing the research concept, I participated in the analysis and discussion of the results, and in preparation of the manuscript.*

28) Reber J.E., **Dabrowski M.**, Galland O., Schmid D.W. Sheath fold morphology in simple shear (2013) *Journal of Structural Geology*, 53, 15-26

*I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

29) Adamuszek M., Schmid D.W., **Dabrowski M.** Theoretical analysis of large amplitude folding of a single viscous layer (2013) *Journal of Structural Geology*, 48, 137-152

*I supervised the development of the analytical model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

30) Reber J.E., **Dabrowski M.**, Schmid D.W. Sheath fold formation around slip surfaces (2012) *Terra Nova*, 24(5), 417-421

*I took part in developing the research concept, I developed the analytical model of flow perturbation around an elliptical slip surface, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

31) ***Dabrowski M.**, Schmid D.W., Podladchikov Y.Y. A two-phase composite in simple shear: Effective mechanical anisotropy development and localization potential (2012) *Journal of Geophysical Research: Solid Earth*, 117(B8)

*I developed the research concept, numerical tools, and the analytical model. I performed numerical simulations and the analysis and discussion of the results, and I prepared the manuscript.*

32) Adamuszek M., Schmid D.W., **Dabrowski M.** Fold geometry toolbox - Automated determination of fold shape, shortening, and material properties (2011) *Journal of Structural Geology*, 33(9), 1406-1416

*I took part in developing the numerical algorithms of fold shape analysis, I developed the analytical model of flow perturbation around an elliptical slip surface, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

33) ***Dabrowski M.**, Schmid D.W. A rigid circular inclusion in an anisotropic host subject to simple shear (2011) *Journal of Structural Geology*, 33(7), 1169-1177

*I developed the research concept, numerical tools, and the analytical solution model. I performed systematic numerical simulations, analysed their results, and prepared the manuscript.*

34) Exner U., **Dabrowski M.** Monoclinic and triclinic 3D flanking structures around elliptical cracks (2010) *Journal of Structural Geology*, 32(12), 2009-2021

*My contribution was already described in section I.2.*

35) Yarushina V.M., **Dabrowski M.**, Podladchikov Y.Y. An analytical benchmark with combined pressure and shear loading for elastoplastic numerical models (2010) *Geochemistry, Geophysics, Geosystems*, 11(8)

*I developed an unstructured finite element method based numerical model of plastic yield, I performed numerical simulations and their analysis, and I provided my comments to the manuscript.*

36) Krotkiewski M., **Dabrowski M.** Parallel symmetric sparse matrix-vector product on scalar multi-core CPUs (2010) *Parallel Computing*, 36(4), 181-198

*I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

37) Adamuszek M., John T., **Dabrowski M.**, Podladchikov Y.Y., Gertisser R. Assimilation and diffusion during xenolith-magma interaction: A case study of the Variscan Karkonosze Granite, Bohemian Massif (2009) *Mineralogy and Petrology*, 97(3-4), 203-222

*I took part in developing the research concept and both the mechanical and diffusional model, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

38) *Krotkiewski M., **Dabrowski M.,** Podladchikov Y.Y. Fractional Steps methods for transient problems on commodity computer architectures (2008) *Physics of the Earth and Planetary Interiors,* 171(1-4), 122-136

*I took part in developing the research concept and numerical algorithms, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

39) *Schmid D.W., **Dabrowski M.**, Krotkiewski M. Evolution of large amplitude 3D fold patterns: A FEM study (2008) *Physics of the Earth and Planetary Interiors*, 171(1-4), 400-408

*I took part in developing the research concept and numerical tools, I performed the analysis of the results and their interpretation, and I participated in preparing the manuscript.*

40) ***Dabrowski M.**, Krotkiewski M., Schmid D.W. MILAMIN: MATLAB-based finite element method solver for large problems (2008) *Geochemistry, Geophysics, Geosystems*, 9(4)

*I designed and implemented in MATLAB a concise finite element code for unstructured computational meshes, I performed performance analysis and tests, optimized the code, and prepared the manuscript.*

Non-JCR publications (the articles published prior to obtaining my PhD degree or directly related to my PhD project are denoted with an asterisk):

1) Pilacik A., Adamuszek M., **Dabrowski M.** Breakout Analysis for Anisotropic Rocks (BAAR): MATLAB-based code to study failure zone development around boreholes in anisotropic shales (2017) *Proceedings of the 51th U.S. Rock Mechanics/Geomechanics Symposium*

*I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

2) Trzeciak M., Sone H., **Dąbrowski M.** Shale creep data extrapolation: comparing different data fitting methods and its uncertainties (2017) *Proceedings of the 51th U.S. Rock Mechanics/Geomechanics Symposium*

   *I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

3) Adamuszek M., Burliga S., **Dabrowski M.** Rozwój fałdów futerałowych przy powierzchniach poślizgu ułożonych zgodnie z warstwowaniem (2016) *Przegląd Solny*, 12, 42-50

   *I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

4) Cornet J.S., **Dabrowski M.**, Schmid D.W. Shear enhanced borehole closure (2016) *Proceedings of the 50th US Rock Mechanics/Geomechanics Symposium*

   *I took part in developing the research concept, I participated in the analysis and discussion of the results, and I provided my comments to the manuscript.*

5) **Dąbrowski M.**, Book reviews: Geodynamics (2015) *Geologos* 21/3

6) Exner U., Rath A., Voorn, M. Kaiser J., **Dabrowski M.**, Sauer R., Hujer W., Gier S., Strauss P. Quantifying porosity and calculating permeability in reservoir rocks of the Vienna Basin (2011) *73rd European Association of Geoscientists and Engineers Conference and Exhibition Incorporating SPE EUROPEC 2011, Workshops*, 310-311

   *I performed numerical simulations of single-phase flow in a porous medium.*

7) Schmid D.W., **Dabrowski M.,** Krotkiewski M. 3D fold pattern formation (2011) *73rd European Association of Geoscientists and Engineers Conference and Exhibition Incorporating SPE EUROPEC 2011, Workshops*, 342-345

   *I took part in developing the research concept and numerical tools, I performed the analysis of the numerical simulation results.*

8) ***Dabrowski M.**, Schmid D.W. Mechanical anisotropy of a two-phase composite consisting of aligned elliptical inclusions (2009) *Trabajos de Geología*, *Universidad de Oviedo*, 29, 196-199

   *I developed the research concept and the numerical and analytical models, I performed the analysis of the numerical results, and prepared the manuscript.*

9) *Jarosiński M., Poprawa P., **Dąbrowski M.** 1-D modelling of lithosphere's rheology - An overview of methodology [Jednowymiarowe modelowania reologii litosfery - Wprowadzenie do metody] (2002) *Przegląd Geologiczny [Geological Review]*, 50, 879-892

   *I developed thermal and rheological models, using both numerical and analytical approaches, and I prepared the corresponding part of the manuscript.*

5. List of project, engineering and design as well as technological achievements (including the achievements not mentioned in section I.3).

N/A

6. List of public realizations of works of art (including the works not mentioned in section I.3).

N/A

7. Information on presentations given at national or international scientific or arts conferences, including a list of lectures delivered upon invitation and plenary lectures.

After obtaining my PhD degree, I delivered 15 oral presentations (6 invited talks) during international and national (Polish) conferences, and I presented 16 posters (25 in total, including posters presented during my PhD studies). I am a co-author of 35 oral presentation (40 in total, incl. posters presented during my PhD studies) and 100 posters (105 in total, incl. posters presented during my PhD studies), which were mainly presented during international conferences.

Invited talks:

2018 **Dabrowski M.**, Cornet J., Trzeciak M., Adamuszek M. Non-linear viscoelastic relaxation of pressure variations in rocks, *European Geosciences Union General Assembly 2018*, Vienna, Austria

2014 **Dabrowski M.** Mechanical instability and effective anisotropic properties in two-phase rocks under pure and simple shear, *Kachanov Symposium*, Vienna, Austria

2012 **Dabrowski M.** Analytical and numerical modeling of ductile deformation in anisotropic rocks, *GeoMod 2012*, Lausanne, Switzerland

2011 **Dabrowski M.,** Jarosiński M. Lithospheric folding - to fold or not to fold?, *Kongsberg Seminar*, Kongsberg, Norway

2010 **Dabrowski M.**, Reber J., Schmid D.W. Structures with distinct length scales, *GeoMod 2010*, Lisbon, Portugal

2009 **Dabrowski M.**, Krotkiewski M., Schmid D.W. Unravelling the puzzle of numerical modeling, *11th International Workshop on Modeling of Mantle Convection and Lithospheric Dynamics*, Braunwald, Switzerland

Oral conference presentations (presentations delivered prior to obtaining my PhD degree are marked with an asterisk):

2017 **Dabrowski M.,** Dzikowski M., Jasinski L., Olkiewicz P. Numerical modeling of multiphase flow in rough and propped fractures, *European Geosciences Union General Assembly 2017*, Vienna, Austria

2016 **Dabrowski M.,** Szczepański J., Grasemann B., Rogowitz A. The Jegłowa metaconglomerate ("Dattelquarzit", SW Poland): a source of conflicting microstructural interpretations since the advent of modern fabric analysis by Bruno Sander, *GeoTirol*, Innsbruck, Austria

2016 Thøgersen K., **Dabrowski M.** Proppant flows in narrow channels, *2nd EarthFlow Seminar*, Oslo, Norway

2016 **Dąbrowski M.**, Badura J., Pacuła J. Modelowanie procesów geologicznych aktywnych w pasie brzegu klifowego [Modelling geological processes active in cliffed coasts], *„Procesy geologiczne w strefie brzegowej morza - GEOST II",* Jastrzębia Góra, Poland

2015 **Dabrowski M.**, Flow of multiphase systems, *1st EarthFlows Seminar*, Oslo, Norway

2015 **Dąbrowski M.**, Badura J., Aleksandrowski P., Rock failure due to topographic stress in the Sudetes Mts: towards a three-dimensional numerical model, 16th Workshop On Recent Geodynamics of the Sudety Mts. and Adjacent Areas, Srebrna Góra, Poland

2010 **Dabrowski M.** Crystal-bearing melts – a perplexing rheological enigma, *22th Kongsberg Seminar*, Kongsberg, Norway

2009 **Dabrowski M.,** Schmid D.W. Effective mechanical properties of composite rocks, *Deformation, Rheology & Tectonics*, Liverpool, UK

2009 **Dabrowski M.,** Schmid D.W. Anisotropy and Heterogeneity Interaction in Shear Zones, *European Geosciences Union General Assembly 2009*, Vienna, Austria

2008* **Dabrowski M.,** Schmid D.W. Mechanical anisotropy of a two-phase composite consisting of aligned elliptical inclusions. *Yorsget*, Oviedo, Spain

2006* **Dabrowski M.**, Schmid D.W. Complete three-dimensional solution for deformable ellipsoidal particles subjected to shear over large strain, *European Geosciences Union General Assembly 2006*, Vienna, Austria

Selected conference posters (posters presented prior to obtaining my PhD degree are marked with an asterisk):

2016 **Dabrowski M.** The evolution of spatial distribution patterns of rigid porphyroclasts under pure and simple shear, *EGU General Assembly Conference Abstracts 18*

2016 **Dabrowski M.**, Powell R., Podladchikov Y. Grain-scale pressure variations: build-up and viscoelastic relaxation, *EGU General Assembly Conference Abstracts 18*

2016 Pilacik A., **Dabrowski M.** Failure development around a borehole in an orthorhombic thermo-elastoplastic rock medium, *EGU General Assembly Conference Abstracts 18*

2014 Podladchikov Y., **Dabrowski M.** Nonlinear visco-elastic relaxation of non-lithostatic pressure, *EGU General Assembly Conference Abstracts 16*

2014 **Dabrowski M.** Can we understand rocks without anisotropy?, *EGU General Assembly Conference Abstracts 16*

2014 Dąbrowski M., Badura J. Finite element modeling of fault-propagation folding above a rigid basement: A case study of the Nysa Kłodzka Graben (Sudetes, SW Poland). *Geologia Sudetica*, *42*

2014 Krotkiewski M., **Dabrowski M.**, Parallel calculations on shared memory, NUMA-based computers using MATLAB, *EGU General Assembly Conference Abstracts 16*

2013 **Dabrowski M.**, Krotkiewski M., Schmid D.W. MILAMIN 2-Fast MATLAB FEM solver, *EGU General Assembly Conference Abstracts 15*

2013 Thøgersen K., **Dabrowski M.** Modeling transport of crystal rich magmas, *EGU General Assembly Conference Abstracts 15*

2013 Mulyukova E., **Dabrowski M.**, Steinberger B. Numerical Modeling of Deep Mantle Convection: Advection and Diffusion Schemes for Marker Methods, *EGU General Assembly Conference Abstracts 15*

2013 **Dabrowski M.** Modeling of ductile deformation in anisotropic rocks with slip surfaces, *EGU General Assembly Conference Abstracts 15*

2012 Ulven O.I., Storheim H., **Dabrowski M.**, Austrheim H., Malthe-Sørenssen A. Modelling of fracture initiation during volume increasing reactions in rocks, *EGU General Assembly Conference Abstracts 14*

2010 Lapotre M., Galland O., **Dabrowski M.** Mechanics of Saucer-Shape Sills Emplacement, *AGU Fall Meeting Abstracts*

2009 Fry A., Kusznir N., **Dabrowski M.**, Rietbrock A., Podladtchikov Y. Modelling stress accumulation and dissipation and the causes of intermediate depth seismicity in subduction zones, *EGU General Assembly Conference Abstracts 11*

2007* Hartz E.H., Podladchikov Y.Y., **Dabrowski M.** Tectonic and reaction overpressures: theoretical models and natural examples, *EGU General Assembly Conference Abstracts 9*

A detailed list of the number of my conference abstracts (talks and posters), delivered as either the main author (I) or a co-author (II):

| Year | Conference | Talk I* | Talk II* | Poster I** | Poster II** |
|---|---|---|---|---|---|
| 2019 | AGU Fall Meeting, 2019, San Francisco, USA | | 1 | | 1 |
| | European Geosciences Union General Assembly 2019, Vienna, Austria | | 2 | 1 | |
| | 5th International Conference on Applied Geophysics, Ostrava, Czech Republic | | 1 | | |
| 2018 | GSA Penrose Conference, Ein Boqeq, Israel | | | | 1 |
| | 2nd National Workshop on Porous Media, Oslo, Norway | | | | 2 |
| | European Geosciences Union General Assembly 2018, Vienna, Austria | 1 | | | 3 |
| | GEOMOD 2018, Barcelona, Spain | | 1 | | |
| | Study of Earth's Deep Interior (SEDI), Edmonton, Alberta, Canada | | | | 1 |
| | 2nd Workshop on Porous Media, Olsztyn, Poland | | | | 1 |
| | „Procesy geologiczne w strefie brzegowej morza - GEOST III", Jastrzębia Góra, Poland | | 1 | | |
| 2017 | European Geosciences Union General Assembly 2017, Vienna, Austria | 1 | 3 | 1 | 5 |
| | 85 Zjazd Polskiego Towarzystwa Geologicznego, Koszalin, Poland | | | | 1 |
| | XXIV Konferencja Stratygrafia Plejstocenu Polski, Bełchatów, Poland | | | | 1 |
| | INTERPORE 2017, Rotterdam, Holland | | 1 | | |
| | ARMA 51st U.S. Rock Mechanics/Geomechanics Symposium, San Francisco, USA | | | | 2 |
| 2016 | AAPG European Region Conference, Bucharest, Romania | | 1 | | 1 |
| | XXI Międzynarodowe Sympozjum Solne „Quo Vadis Sal", Zawoja, Poland | | | | 1 |
| | Geopetrol, Zakopane, Poland | | 1 | | |
| | GeoTirol, Innsbruck, Austria | 1 | | | |
| | ARMA 50st U.S. Rock Mechanics/Geomechanics Symposium, Houston, USA | | | | 1 |
| | „Procesy geologiczne w strefie brzegowej morza - GEOST II", Jastrzębia Góra, Poland | 1 | | | |
| | 2nd EarthFlow Seminar, Oslo, Norway | 1 | | | |
| | EARSeL Symposium, Bonn, Germany | | 1 | | |
| | 2nd Virtual Geosciences Conference, Bergen, Norway | | | | 1 |
| | 78th EAGE Conference & Exhibition 2016, Vienna, Austria | | 1 | | |
| | European Geosciences Union General Assembly 2016, Vienna, Austria | | | 2 | 9 |
| 2015 | XX Międzynarodowe Sympozjum Solne „Quo Vadis Sal", Bochnia, Poland | | | | 1 |
| | The Geology of Geomechanics, London, UK | | | | 3 |
| | 16th Workshop On Recent Geodynamics of the Sudety Mts. and Adjacent Areas, Srebrna Góra, Poland | 1 | | | |
| | Deformation, Rheology & Tectonics, Liverpool, Aachen, German | | | | 1 |
| | 3D GSA Workshop, Baltimore, USA | | 1 | | |
| | 1st EarthFlows Seminar, Oslo, Norway | 1 | | | |

| Year | Conference | Talk I* | Talk II* | Poster I** | Poster II** |
|---|---|---|---|---|---|
| | European Geosciences Union General Assembly 2015, Vienna, Austria | | | 1 | 8 |
| 2014 | Kachanov Symposium, Vienna, Austria | 1 | | | |
| | GEOMOD 2014, Potsdam, Germany | | | 1 | 2 |
| | European Geosciences Union General Assembly 2014, Vienna, Austria | | 2 | 1 | 3 |
| | 12th Meeting of the Central European Tectonic Studies Group (CETeG), Lądek Zdrój, Poland | | 1 | 1 | |
| 2013 | AGU Fall Meeting, San Francisco, USA | | | | 1 |
| | 13th International Workshop on Modelling of Mantle and Lithosphere Dynamics, Hønefoss, Norway | | | 1 | 1 |
| | 11th Meeting of the Central European Tectonic Studies Group (CETeg), Vargesztes, Hungary | | 1 | | |
| | 26th Kongsberg Seminar, Kongsberg, Norway | | | 1 | |
| | European Geosciences Union General Assembly 2013, Vienna, Austria | | 4 | 2 | 5 |
| 2012 | Gordon Research Conferences: Rock Deformation, Andover, NH, USA | | | | 1 |
| | 25th Kongsberg Seminar, Kongsberg, Norway | | | | 5 |
| | European Geosciences Union General Assembly 2012, Vienna, Austria | | 2 | | 5 |
| | GEOMOD 2012, Lausanne, Switzerland | 1 | | | 2 |
| 2011 | 73rd EAGE Conference and Exhibition-Workshops 2011, Vienna, Austria | | | | 2 |
| | AGU Fall Meeting, San Francisco, USA | | | | 1 |
| | 12th International Workshop on Modeling of Mantle Convection and Lithospheric Dynamics, Potsdam, Germany | | | | 1 |
| | Pore2field conference, Paris, France | | | | 1 |
| | AGU Penrose Conference Cap de Creus, Spain | | 1 | | |
| | NOTUR 2011 Conference, Oslo, Norway | | 1 | | |
| | 24th Kongsberg Seminar, Kongsberg, Norway | 1 | | | 2 |
| | European Geosciences Union General Assembly 2011, Vienna, Austria | | 3 | 3 | 9 |
| 2010 | AGU Fall Meeting, San Francisco, USA | | | | 1 |
| | 29th Nordic Geological Winter Meeting Oslo, Norway | | 1 | | |
| | 23rd Kongsberg Seminar, Kongsberg, Norway | 1 | | | |
| | GEOMOD 2010, Lisbon, Portugal | 1 | | | 1 |
| | European Geosciences Union General Assembly 2010, Vienna, Austria | | 2 | | 3 |
| 2009 | AGU Fall Meeting, San Francisco, USA | | | | 1 |
| | 22th Kongsberg Seminar, Kongsberg, Norway | | | | 3 |
| | NOTUR 2009 Conference, Oslo, Norway | | 1 | | |
| | SHIRAZ Conference, Shiraz, Iran | | 1 | | |
| | Deformation, Rheology & Tectonics, Liverpool, UK | 1 | | | 4 |
| | 11th International Workshop on Modeling of Mantle Convection and Lithospheric Dynamics, Braunwald, Switzerland | 1 | | | 1 |
| | European Geosciences Union General Assembly 2009, Vienna, Austria | 1 | | 1 | 1 |
| 2008 | Yorsget, Oviedo, Spain | 1 | | | |
| | Kongsberg Seminar, Kongsberg, Norway | | | 1 | 1 |
| | European Geosciences Union General Assembly 2008, Vienna, Austria | | 2 | 2 | 1 |

| Year | Conference | Talk I* | Talk II* | Poster I** | Poster II** |
|---|---|---|---|---|---|
| | International Geological Congress, Oslo, Norway | | 1 | 1 | 1 |
| 2007 | Kongsberg Seminar, Kongsberg, Norway | | | 1 | |
| | European Geosciences Union General Assembly 2007, Vienna, Austria | | 2 | 2 | 1 |
| 2006 | Kongsberg Seminar, Kongsberg, Norway | | | 1 | |
| | European Geosciences Union General Assembly 2006, Vienna, Austria | 1 | | 1 | 1 |
| **TOTAL*** ** | | 17(15) | 40(35) | 25(16) | 105(100) |

* talk I: first author, talk II: co-author

** poster I: first author, poster II: co-author; including PICO presentations during EGU

*** the number of contributions delivered after obtaining my PhD degree (after 2008) is given in brackets

8. Information on participation in organizational and scientific committees at national or international conferences, including the applicant's function.

I was a member of the organization committee of the *XIII International Workshop on Modelling of Mantle and Lithosphere Dynamics* (2013, Hønefoss, Norway).

I have co-organized conference sessions during EGU meetings in Vienna since 2011. In 2011, I co-organized an oral session entitled „*Recent advances in modelling of tectonic processes",* in 2012-14 „*Recent advances in computational geodynamics*", from 2016 until 2018 „*Recent advances in Geodynamics: Computational methods and applications*", and in 2019 „*Quantitative structural geology: 3D characterisation, analysis and modelling*".

9. Information on participation in the works of research teams realizing projects financed through national and international competitions, including the projects which have been completed and projects in progress, and information on the function performed in the team.

- project task leader ("Multiphase flow in fractured shale rocks") in the Norway Grants-funded and NCBiR-operated project „Physico-chemical effects of sequestration of CO2 in the gas-bearing shales in Pomerania: ShaleSeq" (project leader: Dr hab., Prof. PGI-NRI Marek Jarosiński; project period: 01.05.2014 – 30.04.2017; project budget: 1 969 479 EUR; project contract no POL-NOR/234198/100/2014)

- project task leader („*Modelowanie stanu naprężeń i przepływów w kompleksach łupkowych"* [Stress and flow modelling in shale complexes]) in the NCBiR-funded ("BlueGas") project „*Zintegrowane badania geomechaniczne w celu intensyfikacji wydobycia gazu z łupkowych formacji Pomorza: ShaleMech*" ["An integrated geomechanical investigation to enhance gas extraction from the Pomeranian shale formations: ShaleMech"] (project leader: Dr hab., prof. PIG-PIB Marek Jarosiński; project period: 01.12.2014-01.12.2017; project budget: 9 883 125 PLN; project contract no BG2/ShaleMech/14)

- researcher in the NCN-funded project „*Wpływ zróżnicowania litologicznego serii ewaporatowych na rozwój struktur wewnątrz wysadów solnych*" ["Influence of the lithological variation of the evaporate series on the evolution of internal

structure of salt diapirs“] (project leader: Dr Marta Adamuszek; project period: 22.09.2014-21.12.2018 r.; project budget: 567 120 PLN; project contract no UMO-2013/11/D/ST10/03458)

- researcher in the KBN-funded project „*Efekty topograficzne i mechanizmy fałdowania reologicznie rozwarstwionej litosfery: modelowanie metodą elementów skończonych*" ["Topographic effect and folding mechanisms of a rheologically stratified lithosphere: finite element modelling"] (project leader: Dr Marek Jarosiński; project period: 2008-2011; project contract no 1162/B/P01/2008/35)

- researcher in the ERC-funded project „Disequilibrium metamorphism of stressed lithosphere" (project leader: Prof. Bjørn Jamtveit, project period: 2015-2021, project contract no ERC-2014-ADG)

10. Membership in international or national organizations and scientific societies, including the functions performed by the applicant.

I am a member of the Polish Geological Society.

11. Information on internships completed in scientific or artistic institutions, also abroad, including the place, time and duration of the internship and its character.

- Two-months research stay at ETH Zurich in 2002 related to my MSc project in geology.
- One-month research stay in 2004 at the University of Oslo.
- Post-doctoral projects from 2008 until 2012 in the Centre of Excellence Physics of Geological Processes at the University of Oslo.

12. Membership in editorial committees and scientific boards of journals, including the functions performed by the applicant (e.g. editor-in-chief, chairman of scientific board etc.).

I have been appointed as an associated editor in *Geological Society of America Bulletin* since I 2020.

13. Information on scientific or artistic works reviewed, in particular those published in international journals.

Since 2008, I have reviewed 36 manuscripts for the following journals: *Journal of Structural Geology* (8), *Geochemistry, Geophysics, Geosystems* (4), *Acta Geophysica* (4), *Tectonophysics* (3), *Geophysical Journal International* (2), *Journal of Geophysical Research* (2), *Journal of Metamorphic Geology* (2), *Nature Communications* (1), *Scientific Reports* (1), *Earth and Planetary Science Letters* (1), *Solid Earth* (1), *Lithos* (1), *Physics of the Earth and Planetary Interiors* (1), *Geological Society of America Bulletin* (1), *Geological Quarterly* (1), *Applied Mathematics and Computation* (1), *Applied Mathematical Modelling* (1), *Computers & Mathematics with Applications* (1).

I was a PhD referee for ETH Zurich (Switzerland) in 2017.

14. Information on participation in European or other international programmes.

N/A

15. Information on participation in research teams realizing projects other than those defined in section II.9.

I have participated in research teams executing projects of the Polish Geological Survey, including „Młode strefy tektoniczne a warunki geotermalne w Sudetach w świetle badań geochronologicznych, strukturalnych i termometrycznych" ["The impact of recent tectonic zones on geothermal conditions in the Sudetes based on geochronological, structural, and thermometric studies"] and „Kartografia 4D w strefie brzegowej południowego Bałtyku" ["4D cartography in the coastal zone of the south Baltic Sea"].

16. Information on membership in the teams assessing applications for financing of research projects, applications for scientific awards, applications in other competitions of scientific or didactic character.

In 2020 I was appointed as a member of a Comittee for evaluating and selecting research project within the funding framework of MNiSW statutory grants at PGI-NRI.

17. Information on education and research awards

| | |
|---|---|
| 2019 | Commendation in the Academic Achievements category of the "Geologia 2019" Award organized by the Ministry of Environment in Poland |
| 2019 | The PGI-NRI Director's Award for overall scientific achievements |
| 2016 | The PGI-NRI Director's Award for the highest IF publication |
| 2014 | The PGI-NRI Director's Award for outstanding achievements for PGI |
| 2010 | The Physics of Geological Processes (University of Oslo) teaching award |
| 2009 | His Majesty the King's gold medal for the PhD thesis |

18. Master and doctoral student supervision

I acted a co-supervisor of seven PhD theses: five at the University of Oslo, one at the Potsdam University, and one at the Institute of Geophysics Polish Academy of Sciences in Warsaw. I was supervisor and co-supervisor of six MSc theses (University of Oslo, University of Wroclaw and AGH University of Science and Technology in Krakow).

## III. INFORMATION ON COOPERATION WITH SOCIAL AND ECONOMIC ENVIRONMENT

1. List of technological works

N/A

2. Information on cooperation with economic sector

I have been involved in several industry projects for the Norwegian oil and gas sector in the field of geomechanics, multiphase flow, and thermal modelling.

3. Obtaining the right of industrial property, including the national or international patents granted

N/A

4. Information on implemented technologies

N/A

5. Information on performed expert analyses or other studies prepared on request of public institutions or entrepreneurs

N/A

6. Information on participation in expert and competition teams

N/A

7. Information on artistic projects realized in non-artistic environment

N/A

IV. SCIENTOMETRIC INFORMATION

1. Information on the Impact Factor (in the fields and disciplines in which this parameter is commonly used as a scientometric index)

| | IF** |
|---|---|
| Publications in the presented scientific achievement: 3, 7, 14, 21, 23, 34* | 15,364 |
| PhD-related publications: 31, 33, 38, 39, 40* | 12,415 |
| Other publications | 77,582 |
| All publications | 105,361 |

* item numbering consistent with the publication list in II.4 (JCR publications)
**5-year IF in the publication year

Detailed information on the IF of the publications can be found in the table in IV.5.

2. Information on the number of citations of the applicant's publications, including a separate list of self-citations

According to the Web of Science (ResearcherID: S-8205-2016), as of the 6th of April 2020, my citation count is 377 (453 including self-citations).

Detailed information on the citation count of the individual publications can be found in the table in IV.5.

3. Information on *h*-index held

h-index: 13 (Web of Science as of the 6th of April 2020)

4. Information on the number of the points awarded by the Ministry of Science and Higher Education

| | MNiSW points ** | MNiSW points (2019) |
|---|---|---|
| Publications in the presented scientific achievement: 3, 7, 14, 21, 23, 34* | 332 | 600 |
| PhD-related publications: 31, 33, 38, 39, 40* | 142 | 580 |
| Other publications | 1584 | 3480 |
| All publications | 2058 | 4660 |

* item numbering consistent with the publication list in II.4 (JCR publications)
** MNSiW points in the publication year

5. Detailed information on the IF, MNSiW points, and citation count of the publications

| Year | No. * | Journal | Impact Factor ** | MNiSW points *** | MNiSW points (2019) | Citation count **** | Citation count excl. autocitations |
|---|---|---|---|---|---|---|---|
| 2020 | 1 | *Geophysical Journal International* | 2,777 | 100 | 100 | 0 | 0 |
| 2019 | *2* | *Tectonophysics* | 2,764 | 140 | 140 | 0 | 0 |
| | *3* | *Journal of Structural Geology* | 3,128 | 100 | 100 | 1 | 1 |
| | *4* | *Contributions to Mineralogy and Petrology* | 3,230 | 200 | 200 | 2 | 2 |
| | *5* | *Tectonophysics* | 2,764 | 140 | 140 | 0 | 0 |
| | *6* | *The Photogrammetric Record* | 1,591 | 100 | 100 | 1 | 1 |
| | *7* | *Journal of Structural Geology* | 3,128 | 100 | 100 | 4 | 3 |
| | *8* | *Geophysical Journal International* | 2,777 | 100 | 100 | 5 | 4 |
| 2018 | *9* | *International Journal of Rock Mechanics and Mining Sciences* | 3,780 | 45 | 140 | 2 | 1 |
| | *10* | *Rock Mechanics and Rock Engineering* | 4,100 | 40 | 100 | 1 | 1 |
| | *11* | *Computers & Mathematics with Applications* | 2,811 | 40 | 140 | 0 | 0 |
| | *12* | *International Journal of Rock Mechanics and Mining Sciences* | 3,780 | 45 | 140 | 3 | 2 |
| | *13* | *Journal of Geophysical Research: Solid Earth* | 3,585 | 40 | 140 | 3 | 3 |
| 2017 | *14* | *Terra Nova* | 2,229 | 35 | 100 | 2 | 1 |
| | *15* | *Journal of Structural Geology* | 2,622 | 35 | 100 | 1 | 0 |
| | *16* | *Geophysical Journal International* | 2,528 | 35 | 100 | 4 | 2 |
| | *17* | *Journal of Fluid Mechanics* | 2,893 | 40 | 140 | 1 | 0 |
| 2016 | *18* | *Journal of Structural Geology* | 2,408 | 35 | 100 | 10 | 4 |
| | *19* | *Physical Review E* | 2,366 | 35 | 140 | 3 | 1 |
| 2015 | *20* | *Journal of Geophysical Research: Solid Earth* | 3,318 | 40 | 140 | 25 | 24 |
| | *21* | *Journal of Structural Geology* | 2,084 | 35 | 100 | 13 | 12 |
| | *22* | *Journal of Metamorphic Geology* | 3,673 | 45 | 200 | 15 | 14 |
| 2014 | *23* | *Journal of Structural Geology* | 2,884 | 30 | 100 | 20 | 18 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | *24* | *Geofluids* | 2,046 | 30 | 100 | 11 | 10 |
| 2013 | *25* | *Tectonophysics* | 2,866 | 35 | 140 | 14 | 14 |
| | *26* | *Terra Nova* | 2,321 | 35 | 100 | 3 | 2 |
| | *27* | *Parallel Computing* | 1,890 | 30 | 70 | 20 | 20 |
| | *28* | *Journal of Structural Geology* | 2,420 | 30 | 100 | 10 | 8 |
| | *29* | *Journal of Structural Geology* | 2,420 | 30 | 100 | 13 | 11 |
| 2012 | *30* | *Terra Nova* | 2,830 | 35 | 100 | 13 | 10 |
| | *31* | *Journal of Geophysical Research: Solid Earth* | 3,174 | 40 | 140 | 24 | 21 |
| 2011 | *32* | *Journal of Structural Geology* | 1,556 | 30 | 100 | 12 | 10 |
| | *33* | *Journal of Structural Geology* | 1,556 | 30 | 100 | 17 | 12 |
| 2010 | *34* | *Journal of Structural Geology* | 1,911 | 32 | 100 | 17 | 12 |
| | 35 | *Geochemistry, Geophysics, Geosystems* | 3,368 | 32 | 140 | 11 | 10 |
| | *36* | *Parallel Computing* | 1,086 | 27 | 70 | 22 | 21 |
| 2009 | *37* | *Mineralogy and Petrology* | 1,012 | 15 | 100 | 4 | 4 |
| 2008 | *38* | *Physics of the Earth and Planetary Interiors* | 2,353 | 24 | 100 | 2 | 1 |
| | *39* | *Physics of the Earth and Planetary Interiors* | 2,353 | 24 | 100 | 32 | 29 |
| | 40 | *Geochemistry, Geophysics, Geosystems* | 2,979 | 24 | 140 | 112 | 88 |
| SUMA | Publications in the presented scientific achievement: 3, 7, 14, 21, 23, 34* | | 15,364 | 332 | 600 | 57 | 47 |
| | PhD-related publications: 31, 33, 38, 39, 40* | | 12,415 | 142 | 580 | 187 | 151 |
| | Other publications | | 77,582 | 1584 | 3480 | 209 | 179 |
| | All publications | | 105,361 | 2058 | 4660 | 453 | 377 |

* item numbering consistent with the publication list in II.4 (JCR publications)

** 5-year IF in the publication year

*** MNSiW points in the publication year

**** based on Web of Science as of the 6th of April 2020

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(Applicant's signature)