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Forschungsgebiete

I am interested in understanding the basic physics that controls how biological and synthetic materials change shape through the influence of processes such as growth or swelling. Our work uses both experimental and theoretical methods and has relevance in basic biology (morphogenesis), healthcare (tissue engineering) and robotics (the design of actuators).

Organisationszugehörigkeiten

Universitätsprofessor/in
Chemie und Physik der Materialien
Paris Lodron Universität Salzburg
Salzburg, Österreich
1 Okt. 2017 → present

Publikationen

Twisted plywood-like tissue formation in vitro. Does curvature do the twist?

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Preface

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Correction: Pressurized honeycombs as soft-actuators: A theoretical study (Journal of the Royal Society Interface (2014) 11, (20140458) DOI: 10.1098/rsif.2014.0458)

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Subtleties with Sulfur: Calixarenes as uranophiles

Asfari, Z., Bilyk, A., Dunlop, J. W. C., Hall, A. K., Harrowfield, J. M., Hosseini, M. W., Skelton, B. W. & White, A. H., 4 Feb. 2001, in: Angewandte Chemie - International Edition. 40, 4, S. 721-723 3 S.

Aktivitäten

CurvoBio 2024

Dunlop, J. (Mitwirkende/r)
28 Aug. 2024 → 30 Aug. 2024

PhD Defence - Examiner

Dunlop, J. (Prüfer)
3 Juni 2024

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
17 Mai 2024

Rubbing Powders: Interfacial Radical Formation in Compacted Nanoparticle Ensembles

Diwald, O. (Redner/in), Schwab, T. (Redner/in), Aicher, K. (Redner/in), McKenna, K. (Redner/in) & Dunlop, J. (Redner/in)
2 Okt. 2023

Examination of Masters Thesis in Biophysics at the HU Berlin

Dunlop, J. (Prüfer)
21 Sept. 2023

Examiner Masters Science and Technology of Materials

Dunlop, J. (Prüfer)
10 Juli 2023

Examiner Masters CPM

Dunlop, J. (Prüfer)
20 Juni 2023

Examiner Masters Medical Biology

Dunlop, J. (Prüfer)
13 März 2023

PhD Defence - Examiner

Dunlop, J. (Prüfer)
24 Feb. 2023

MorphoPhysics - Physical Explorations into Growth and Form

Dunlop, J. (Redner/in)
15 Dez. 2022

Biophysical modelling of the role of geometry on tissue patterning and growth

Dunlop, J. (Redner/in)
13 Dez. 2022

PhD Defence Committee Reviewer and Examiner

Dunlop, J. (Prüfer)
13 Dez. 2022

Wissenstransfer zur UniBrennt Besetzung

Leik, L. (Redner/in), Klackl, J. (Redner/in), Blechert, J. (Redner/in), Knoll, M. (Redner/in), Koch, A. (Redner/in), Dunlop, J. (Redner/in) & Zeller, C. (Redner/in)
Nov. 2022 → ...

MorphoPhysics, an introduction to our research in Salzburg

Dunlop, J. (Redner/in)
28 Okt. 2022

Reviewer and Examiner PhD Defence

Dunlop, J. (Prüfer)
20 Sept. 2022

Chair of Examination Board

Dunlop, J. (Prüfer)
14 Sept. 2022

Helical fibrous materials architectures in biology

Dunlop, J. (Redner/in)
14 Sept. 2022

Modelling the role of curvature on tissue patterning and growth (Keynote)

Dunlop, J. (Redner/in)
11 Apr. 2022 → 13 Apr. 2022

Chair of Examination Board - Masters Medical Biology

Dunlop, J. (Prüfer)
23 März 2022

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
18 März 2022

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
18 März 2022

Architecture Naturelles

Dunlop, J. (Redner/in)
18 Jan. 2022

Department of Biomaterials Max Planck Institute of Colloids and Interfaces Potsdam 14476 Germany

Dunlop, J. (Gastforscher/-in)
2 Aug. 2021 → 19 Aug. 2021

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
4 Juni 2021

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
4 Juni 2021

Reviewer and Examiner JD Engineering Science

Dunlop, J. (Prüfer)
4 Juni 2021

Reviewer and Examiner - PhD Defence

Dunlop, J. (Prüfer)
28 Mai 2021

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
18 März 2021

Swarming Behaviour in Confinement

Dunlop, J. (Redner/in)
5 März 2021

Delaunay surfaces and the mechanics of tissue patternin

Dunlop, J. (Redner/in)
4 März 2021

CurvoBio2021

Dunlop, J. (Organisator/in)
2021

Visualisation of 3D Biological samples

Dunlop, J. (Redner/in) & Eder, M. (Redner/in)
2021

Reviewer and Examiner - Doctoral Thesis

Dunlop, J. (Prüfer)
20 Nov. 2020

Masters Degree Review

Dunlop, J. (Prüfer)
17 Nov. 2020

Fibrous Delaunay Surfaces - Part 2

Dunlop, J. (Redner/in)
3 Aug. 2020

Fibrous Delaunay Surfaces - Part 1

Dunlop, J. (Redner/in)
27 Juli 2020

Examiner in Masters Defence Committee

Dunlop, J. (Prüfer)
29 Juni 2020

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
28 Mai 2020

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
28 Mai 2020

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
7 Apr. 2020

Examiner and Reviewer for PhD Thesis

Dunlop, J. (Prüfer)
30 Jan. 2020

Anticlastic surfaces for tissue growth

Dunlop, J. (Redner/in)
26 Nov. 2019

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
15 Nov. 2019

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
15 Nov. 2019

Surfaces shape and influence tissue form

Dunlop, J. (Redner/in)
24 Sept. 2019

The influence of geometric features on cell and extracellular matrix patterning

Dunlop, J. (Redner/in)
18 Sept. 2019

Examiner in Masters Defence Committee

Dunlop, J. (Prüfer)
17 Sept. 2019

Examiner in PhD Defence Committee

Dunlop, J. (Prüfer)
12 Sept. 2019

Morphogenesis on Chip

Dunlop, J. (Redner/in)
11 Sept. 2019

Examiner Bachelor JD Engineering Science

Dunlop, J. (Prüfer)
12 Juli 2019

The influence of geometry on shape-changing soft-matter

Dunlop, J. (Redner/in)
15 Mai 2019

Introduction to X-ray Tomography

Dunlop, J. (Redner/in)
7 März 2019

CurvoBio 2019

Dunlop, J. (Organisator/in), Schamberger, B. (Organisator/in) & Bidan, C. (Organisator/in)
6 Feb. 2019

External Examiner of Masters Thesis

Dunlop, J. (Prüfer)
2019

The physics of tissue growth on curved surfaces

Dunlop, J. (Gastvortragende/r)
13 Sept. 2018 → ...

The physics of tissue growth on curved surfaces.

Dunlop, J. (Gastvortragende/r)
16 Jan. 2018 → ...