

## Publications, talks, and other contributions

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### Patent

2011: EP 2 320 015 - Hingeless, infinitely deformable folding mechanism (Gelenkloser, stufenlos verformbarer Klappmechanismus). Inventors: Knippers J, Lienhard J, Schleicher S, Poppinga S, Masselter T, Speck T. Filing: 10.11.2009, EP20060743126. Disclosure: 11.05.2011, EP 2 320015 A2.

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### Publications

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- 2018: **Kampowski T\*, Demandt S, Poppinga S, Speck T (2018)** Structural and mechanical adaptations to desiccation in the resurrection plant *Ramonda myconi* (Gesneriaceae) (submitted)
- Speck T\*, Bauer G, Masselter T, Poppinga S, Schmier S, Thielen M, Speck O (2018)** Biomechanics and functional morphology of plants – inspiration for biomimetic materials and structures. In: A. Geitmann, J. Gril (eds.), *Plant Biomechanics*. Springer (accepted)
- Poppinga S\*, Westermeier AS, Speck T, Fleischmann A (2018)** Structural and functional diversity of bladderwort traps. *AIPC (Associazione Italiana Piante Carnivore) Magazine* (accepted)
- Westermeier AS\*, Sachse R\*, Poppinga S, Vögele P, Adamec L, Speck T, Bischoff M (2018)** How the carnivorous waterwheel plant (*Aldrovanda vesiculosa*) snaps. *Proceedings of the Royal Society B: Biological Sciences* 285: 20180012. doi: 10.1098/rspb.2018.0012.
- Nestle N\*, Šandor I A, Bruchmann B, Speck T, Gallenmüller F, Poppinga S (2018)** Fossilized but functional – Tomographic insights into nature’s most resilient actuators. *Proceedings of the Bruker Micro-CT User Meeting* 2018: 49-55.
- Poppinga S\*, Alamsyah F, Bauer U, Fleischmann A, Horstmann M, Klink S, Kruppert S, Lin Q, Müller U, Northrop A, Plachno BJ, Prins A, Scharmann M, Sirová D, Skates L, Westermeier AS, Ellison AM\* (2018)** What’s new in the world of carnivorous plants - Summary of two symposia held in July 2017. *Carnivorous Plant Newsletter* 47(1): 18-27.
- Gallenmüller F\*, Langer M, Poppinga S, Kassemeyer H-H, Speck T (2018) (online first Dec. 2017)** Spore liberation in mosses revisited. *AoB PLANTS* 10: plx075. doi: 10.1093/aobpla/plx075

**Kampowski T\*, Mylo MD, Poppinga S, Speck T (2018)** How water availability influences morphological and biomechanical properties in the one-leaf plant *Monophyllaea horsfieldii* R.Br.. *Royal Society Open Science* 5: 171076. doi: 0.1098/rsos.171076

**Körner A\*, Born L, Mader A, Sachse R, Saffarian S, Westermeier AS, Poppinga S, Bischoff M, Gresser GT, Milwich M, Speck T, Knippers J (2018) (online first Dec. 2017)** Flectofold – A biomimetic compliant shading device for complex free form facades. *Smart Materials and Structures* 27: 017001. doi: 10.1088/1361-665X/aa9c2f

**Poppinga S\*, Zollfrank C, Prucker O, Rühle J, Menges A, Cheng T, Speck T (2018) (online first Oct. 2017)** Toward a new generation of smart biomimetic actuators for architecture. *Advanced Materials* 30(19) (Special Issue: Bioinspired Materials): 1703653. doi: 10.1002/adma.201703653

**Poppinga S\*, Bauer U, Speck T, Volkov AG (2018) (online first Dec. 2017)** Motile traps. In: Ellison AM, Adamec L (eds.) *Carnivorous plants - Physiology, ecology, and evolution*. Oxford University Press, pp. 180-193. doi: 10.1093/oso/9780198779841.003.0014

**Bauer U\*, Jetter R, Poppinga S (2018) (online first Dec. 2017)** Non-motile traps. In: Ellison AM, Adamec L (eds.) *Carnivorous plants - Physiology, ecology, and evolution*. Oxford University Press, pp. 194-206. doi: 10.1093/oso/9780198779841.003.0015

2017: **Kampowski T\*, Mylo MD, Speck T, Poppinga S (2017)** On the morphometry, anatomy and water stress behaviour of the anisocotyledonous *Monophyllaea horsfieldii* (Gesneriaceae) and their eco-evolutionary significance. *Botanical Journal of the Linnean Society* 185(3): 425-442. doi: 10.1093/botlinnean/box063

**Bischoff M\*, Sachse R, Westermeier AS, Körner A, Born L, Poppinga S, Gresser GT, Speck T, Knippers J (2017)** Modeling and analysis of the trapping mechanism of *Aldrovanda vesiculosa* as biomimetic inspiration for façade elements. In: A. Bögle, M. Grohmann (eds.) IASS Annual Symposium 2017 Interfaces: architecture.engineering.science, 25–28th September, Hamburg, Germany.

**Westermeier AS, Poppinga S, Körner A, Born L, Sachse R, Saffarian S, Knippers J, Bischoff M, Gresser GT, Speck T (2017)** Keine Gelenkbeschwerden – Wie Pflanzen sich bewegen und die Technik inspirieren. In: Knippers J, U. Schmid & Speck T (eds.), *Baubionik - Biologie beflügelt Architektur. – Stuttgarter Beiträge zur Naturkunde, Serie C, Band 82, Stuttgart.*, pp. 30-39.

**Westermeier AS, Fleischmann A, Müller K, Schäferhoff B, Rubach C, Speck T, Poppinga S\* (2017)** Trap diversity and character evolution in carnivorous bladderworts (*Utricularia*, Lentibulariaceae). *Scientific Reports* 7: 12052. doi:10.1038/s41598-017-12324-4

**Born L\*, Körner A, Schieber G, Westermeier AS, Poppinga S, Sachse R, Bergmann P, Betz O, Bischoff M, Speck T, Knippers J, Milwich M, Gresser GT (2017)** Fiber-reinforced plastics with locally adapted stiffness for bio-inspired hingeless, deployable architectural systems. In: Herrmann A (eds.) 21st Symposium on Composites, Vol. 742: Trans Tech Publications (Key Engineering Materials), pp. 689-696. doi: 10.4028/www.scientific.net/KEM.742.689

**Poppinga S\*, Daber LE, Westermeier AS, Kruppert S, Horstmann M, Tollrian R, Speck T (2017)** Biomechanical analysis of prey capture in the carnivorous Southern bladderwort (*Utricularia australis*). *Scientific Reports* 7: 1776. doi: 10.1038/s41598-017-01954-3

**Poppinga S, Nestle N, Reible B, Masselter T, Bruchmann B, Speck T (2017)** Fossile Zapfenschuppen bewegen sich noch nach Millionen von Jahren. *Naturwissenschaftliche Rundschau* 70(3), 139-140.

**Poppinga S\*, Nestle N, Šandor A, Reible B, Masselter T, Bruchman B, Speck T (2017)** Hygroscopic motions of fossil conifer cones. *Scientific Reports* 7: 40302. doi: 10.1038/srep40302

2016: **Poppinga S\*, Speck T (2016)** 3D-gedruckte, bewegliche Strukturen inspiriert von langsamen und schnellen Pflanzenbewegungen. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 8. Bionik-Kongress Hochschule Bremen, pp.12-18.

**Born L\*, Westermeier AS, Gresser GT, Poppinga S, Speck T (2016)** Catching inspiration from the carnivorous plant *Aldrovanda vesiculosa* – The biomimetic façade shading system “Flectofold”. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 8. Bionik-Kongress. Hochschule Bremen, pp. 137-143.

**Kampowski T\***, Eberhard L, Gallenmüller F, Poppinga S, Speck T (2016) Medicinal leeches suck, don't they? – Investigating the functional morphology and general attachment performance of *Hirudo verbana* suction discs. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 8. Bionik-Kongress. Hochschule Bremen, pp. 193-200.

**Kampowski T\***, Mylo MD, Demandt S, Poppinga S, Speck T (2016) The impact of water stress on morphological and biomechanical properties of desiccation-tolerant and desiccation-intolerant Gesneriaceae. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 8. Bionik-Kongress. Hochschule Bremen, pp.214-219.

**Poppinga S\***, Körner A, Sachse R, Born L, Westermeier AS, Hesse L, Knippers J, Bischoff M, Gresser GT, Speck T (2016) Compliant mechanisms in plants and architecture. In: Knippers J, Speck T, K. Nickel (eds.), *Biomimetic research for architecture and building construction: biological design and integrative structures*. Biologically-inspired systems, Springer, Heidelberg, Berlin, pp. 169-193. doi: 10.1007/978-3-319-46374-2\_9

**Speck T\***, Masselter T, Poppinga S, Thielen M, Bauer G, Bunk K, Hesse L, Schmier S, Westermeier AS (2016) Fibres in biology and technology: smart fibre-reinforced materials and structures inspired by plants and animals. *Proceedings of the ECCM17 - 17th European Conference on Composite Materials Munich*, Germany, 26-30th June 2016 (ISBN 978-3-00-053387-7).

**Adamec L\***, Poppinga S (2016) Measurement of the critical negative pressure inside traps of aquatic carnivorous *Utricularia* species. *Aquatic Botany* 133: 10-16. doi: 10.1016/j.aquabot.2016.04.007.

**Poppinga S\***, Kampowski T, Metzger A, Speck O, Speck T (2016) Comparative kinematical analyses of Venus flytrap (*Dionaea muscipula*) snap-traps. *Beilstein Journal of Nanotechnology* 7: 664-674 (part of the thematic series "Biological and biomimetic materials and surfaces"). doi:10.3762/bjnano.7.59

**Kampowski T\***, Eberhard L, Gallenmüller F, Speck T, Poppinga S (2016) Functional morphology of suction discs and attachment performance of the Mediterranean medicinal leech (*Hirudo verbana* CARENA). *Journal of the Royal Society Interface* 13: 20160096. doi: 10.1098/rsif.2016.0096

**Poppinga S\***, Weißkopf C, Westermeier AS, Masselter T, Speck T (2016) (online first Nov. 2015) Fastest predators in the plant kingdom: Functional morphology and biomechanics of suction traps found in the largest genus of carnivorous plants. *AoB PLANTS* 8: plv140. doi:10.1093/aobpla/plv140

2015: **Poppinga S** (2015) *Nepenthes gracilis*, die Kannenpflanze mit Sprungbrett. *Das Taubblatt* 82: 104-111.

**Poppinga S\***, Speck T (2015) New insights into the passive nastic motions of pine cone scales and false indusia in ferns. *Proceedings of the 8th Plant Biomechanics International Conference*, 30.11.-04.12.2015, Nagoya, Japan

**Poppinga S\***, Haushahn T, Warnke M, Masselter T, Speck T (2015) Sporangium exposure and spore release in the Peruvian maidenhair fern (*Adiantum peruvianum*, Pteridaceae). *PLOS ONE* 10(10): e0138495. doi: 10.1371/journal.pone.0138495

**Schleicher S\***, Lienhard J, Poppinga S, Speck T, Knippers J (2015) (online first Jan. 2014) A methodology for transferring principles of plant movements to elastic systems in architecture. *Computer-Aided Design* 60: 105-117 (part of the special issue "Material ecology: design and computational issues"). doi: http://dx.doi.org/10.1016/j.cad.2014.01.005

2014: **Poppinga S\***, Speck T (2014) Hygroscopic pine cone movement re-visited - Biomimetic actuators inspired by passive nastic plant movements. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 7. Bionik-Kongress Hochschule Bremen, pp. 256-260.

2013: **Poppinga S**, Masselter T, Lienhard J, Schleicher S, Knippers J, Müller L, Milwich M, Speck T (2013) Strelitzie inspiriert Architektur. *Naturwissenschaftliche Rundschau* 66(12): 649-651.

**Poppinga S**, Metzger A, Speck O, Masselter T, Speck T\* (2013) Schnappen, schleudern, saugen: Fallenbewegungen fleischfressender Pflanzen. *Biologie in unserer Zeit* 43(6): 352-361 (invited review; with cover picture). doi: 10.1002/biuz.201310520

**Poppinga S\***, Hartmeyer S, Masselter T, Hartmeyer I, Speck T (2013) Trap diversity and evolution in the family Droseraceae. *Plant Signaling & Behavior* 8(7): e24685 (invited review). doi: 10.4161/psb.24685

**Poppinga S\***, Masselter T, Speck T (2013) Faster than their prey: New insights into the rapid movements of active carnivorous plants traps. *BioEssays: News and Reviews in Molecular, Cellular and Developmental Biology* 35: 649-657 (invited review; issue highlight). doi: 10.1002/bies.201200175

**Hartmeyer S\***, Hartmeyer I, Masselter T, Seidel R, Speck T, Poppinga S (2013) Per Katapult in die Todesfalle: Der einzigartige Fangmechanismus von *Drosera glanduligera*. Deutsche Übersetzung des CPN-Artikels "Catapults into a deadly trap: The unique prey capture mechanism of *Drosera glanduligera*". *Das Taubblatt* 75: 12-32 (with cover picture).

**Hartmeyer S\***, Hartmeyer I, Masselter T, Seidel R, Speck T, Poppinga S (2013) Catapults into a deadly trap: The unique prey capture mechanism of *Drosera glanduligera*. *Carnivorous Plant Newsletter* 42(1): 4-14 (with cover picture).

**Poppinga S, Hartmeyer S, Seidel R, Masselter T, Hartmeyer I, Speck T (2013)** Eine fleischfressende Pflanze mit Katapultfalle. *Naturwissenschaftliche Rundschau* 66(1): 37-38.

2012: **Poppinga S\***, Hartmeyer S, Seidel R, Masselter T, Hartmeyer I, Speck T (2012) Catapulting tentacles in a sticky carnivorous plant. *PLOS ONE* 7(9): e45735. doi: 10.1371/journal.pone.0045735

**Poppinga S\***, Masselter T, Speck T (2012) Fast plant movements. In: Moulia, B., Fournier, M. (eds.) *Proceedings of the 7th Plant Biomechanics International Conference*, Clermont-Ferrand, France, pp. 315-318.

**Masselter T\***, Poppinga S, Lienhard J, Schleicher S, Speck T (2012) The flower of *Strelitzia reginae* as concept generator for the development of a technical deformation system for architectural purposes. In: B. Moulia, M. Fournier (eds.) *Proceedings of the 7th Plant Biomechanics International Conference*, Clermont-Ferrand, France, pp. 389-392.

**Poppinga S\***, Lienhard J, Schleicher S, Speck O, Knippers J, Speck T, Masselter T (2012) Paradiesvogelblume trifft Architektur - Bionische Innovation für gelenkfreie technische Anwendungen. *Praxis der Naturwissenschaften – Biologie* 5(61): 31-35.

**Lienhard J, Poppinga S, Schleicher S (2012)** Es geht auch ohne Gelenke. *architektur+technik* 4(12): 80-81.

2011: **Poppinga S, Joyeux M\*** (2011) Different mechanics of snap-trapping in the two closely related carnivorous plants *Dionaea muscipula* and *Aldrovanda vesiculosa*. *Physical Review E* 84: 041928. doi: 10.1103/PhysRevE.84.041928

**Lienhard J, Schleicher S, Poppinga S, Masselter T, Milwich M, Speck T, Knippers J\*** (2011) Flectofin: a hingeless flapping mechanism inspired by nature. *Bioinspiration & Biomimetics* 6: 045001 (part of the special section "Biomimetics of movement"). doi: 10.1088/1748-3182/6/4/045001

**Schleicher S, Lienhard J, Knippers J, Poppinga S, Masselter T, Speck T (2011)** Bio-inspired kinematics of adaptive shading systems for free form facades. In: D. Nethercot et al. (eds), *Proceedings of the 35th Annual Symposium of IABSE / 52nd Annual Symposium of IASS / 6th International Conference on Space Structures 'Taller Longer Lighter - Meeting growing demand with limited resources'*, London, UK, 0551.

**Schleicher S\***, Lienhard J, Poppinga S, Masselter T, Speck T, Knippers J (2011) Adaptive façade shading systems inspired by natural elastic kinematics. *Proceedings of the International Adaptive Architecture Conference IAAC* (2011), London, pp. 2-12.

**Masselter T, Barthlott W, Bauer G, Bertling J, Cichy F, Ditsche-Kuru P, Gallenmüller F, Gude M, Haushahn T, Hermann M, Immink H, Knippers J, Lienhard J, Luchsinger R, Lunz K, Mattheck C, Milwich M, Mölders N, Neinhuis C, Nellesen A, Poppinga S, Rechberger M, Schleicher S, Schmitt C, Schwager H, Seidel R, Speck O, Stegmaier T, I. Tesari, Thielen M, Speck T (2011)** Biomimetic products. In: Y. Bar-Cohen (ed.), *Biomimetics - Nature Based Innovation*, pp. 377-429. CRC Press, Pasadena.

**Poppinga S, Weißkopf C, Masselter T, Speck T (2011)** Ultraschnelle Saugfallen beim fleischfressenden Wasserschlauch. *Naturwissenschaftliche Rundschau* 64(4): 205-206.

**Vincent O, Weißkopf C, Poppinga S, Masselter T, Speck T, Joyeux M, Quilliet C, Marmottant P\*** (2011) Ultrafast underwater suction traps. *Proceedings of the Royal Society B* 278(1720): 2909-2914. doi: 10.1098/rspb.2010.2292

- 2010: **Marmottant P<sup>\*</sup>, Vincent O, Quilliet C, Weißkopf C, Poppinga S, Masselter T, Speck T, Joyeux M (2010)** The ultrafast valve of an aquatic carnivorous plant. *Bulletin of the American Physical Society* 55(16), 63rd Annual Meeting of the APS Division of Fluid Dynamics 2010, Long Beach, California.
- Poppinga S, Lienhard J, Schleicher S, Masselter T, Milwich M, Stegmaier T, Sartori J, Walter A, Schur H-F, Vogg K, Speck T, Knippers J (2010)** Architektur und Bionik - Wandelbarkeit ohne Gelenke. *ibr RKW Informativen Bau-Rationalisierung* 38(4): 24-25.
- Poppinga S<sup>\*</sup>, Lienhard J, Schleicher S, Masselter T, Knippers J, Speck T (2010)** Gelenkfreie Klappen bei *Strelitzia reginae*. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 5. Bionik-Kongress Hochschule Bremen, pp. 320-326.
- Lienhard J<sup>\*</sup>, Schleicher S, Poppinga S, Walter A, Sartori J, Milwich M, Stegmaier T, Masselter T, Speck T, Knippers J (2010)** Optimierung und Weiterentwicklung des Flectofin®. In: A. B. Kesel, D. Zehren (eds.), *Bionik: Patente aus der Natur*. Tagungsbeiträge zum 5. Bionik-Kongress Hochschule Bremen, pp. 36-45.
- Poppinga S, Koch K, Bohn H, Barthlott W<sup>\*</sup> (2010)** Comparative and functional morphology of hierarchically structured anti-adhesive surfaces in carnivorous plants and kettle trap flowers. *Functional Plant Biology* 37(10): 952-961. doi: 10.1071/FP10061
- Lienhard J<sup>\*</sup>, Schleicher S, Knippers J, Poppinga S, Speck T (2010)** Form-finding of nature inspires kinematics for pliable structures. In: Q. Zhang et al. (eds.), *Proceedings of the International Symposium of the International Association of Shell and Spatial Structures (IASS)*, Spatial Structures Temporary and Permanent, Shanghai, China, pp. 2545-2554.
- Poppinga S, Lienhard J, Masselter T, Schleicher S, Knippers J, Speck T<sup>\*</sup> (2010)** Biomimetic deployable systems in architecture. In: C. T. Lim, J. C. H. Goh (eds.), *IFMBE Proceedings 31*, 6th World Congress on Biomechanics (WCB) 2010, Singapore, pp. 40-43. doi: 10.1007/978-3-642-14515-5\_11
- Rembold K<sup>\*</sup>, Irmer A, Poppinga S, Rischer H, Bringmann G (2010)** Propagation of *Triphyophyllum peltatum* (Dioncophyllaceae) and observations on its carnivory. *Carnivorous Plant Newsletter* 39(3): 71-77 (with cover picture).
- Poppinga S, Masselter T, Lienhard J, Schleicher S, Knippers J, Speck T (2010)** Plant movements as concept generators for deployable systems in architecture. In: C. A. Brebbia (ed.), *Design & Nature V: Comparing Design in Nature with Science and Engineering*, WIT Press, Southampton, Boston, pp. 403-409. doi: 10.2495/DN100351
- Lienhard J, Poppinga S, Schleicher S, Speck T, Knippers J (2010)** Elastic architecture: nature inspired pliable structures. In: C. A. Brebbia (ed.), *Design & Nature V: Comparing Design in Nature with Science and Engineering*, WIT Press, Southampton, Boston, pp. 469-477. doi: 10.2495/DN100421
- Schleicher S, Lienhard J, Poppinga S, Speck T, Knippers J (2010)** Abstraction of bio-inspired curved-line folding patterns for elastic foils and membranes in architecture. In: C. A. Brebbia (ed.), *Design & Nature V: Comparing Design in Nature with Science and Engineering*, WIT Press, Southampton, Boston, pp. 479-489. doi: 10.2495/DN100431
- 2009: **Lienhard J, Poppinga S, Schleicher S, Masselter T, Speck T, Knippers J (2009)** Abstraction of plant movements for deployable structures in architecture. In: B. Thibaut (ed.), *Proceedings of the 6th Plant Biomechanics International Conference*, Ecofog, Cayenne, French Guyana, pp. 389-397.
- Poppinga S, Müller K, Omlor R (2009)** Darwin entdeckt tierische Eigenschaften an fleischfressenden Pflanzen. In: Schneckenburger, S., Omlor, R. (eds.), *Darwins Garten – Evolution entdecken*. Verband Botanische Gärten e. V., Berlin, pp. 42-43.
- 2007: **Poppinga S<sup>\*</sup>, Barthlott W, Koch K (2007)** Plants that trap animals: microscopic characteristics of anti-adhesive surfaces. 33rd Microscopy Conference of the Deutsche Gesellschaft für Elektronenmikroskopie e. V., Saarbrücken, 02.-07.09.2007. *Microscopy and Microanalysis* 13(3): 192-193. doi: 10.1017/S1431927607080968
- 1997: **Poppinga S (1997)** *Drosophyllum lusitanicum* (L.) Link – Portugiesisches Taublatt. *Das Taublatt* 30(1): 4.

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## Further conference contributions, posters and oral presentations

(\*\*T) keynote lecture, (\*T) invited talk, (T) regular talk, (ST) short talk accompanying poster presentation, (P) poster presentation, (A) abstract. Presenter is underlined when several authors are listed.

- 2018: (\*T) (P) Poppinga S, Schenck P, Speck T, Correa D, Menges A, Nestle N, Bruchmann B (2018) Abstraction of slow and fast plant movement principles for the technical transfer into biomimetic structures. BASF-JONAS Family Days, Ludwigshafen, 20.-21.03.2018.
- (T) Poppinga S, Gallenmüller F (2018) Bewegungen bei Pflanzen. Öffentlicher Vortrag, Veranstaltet vom Freundeskreis Botanischer Garten Freiburg, 19.01.2018.
- 2017: (\*T) Poppinga S, Speck T (2017) Functional morphology and biomechanics of the fast traps of *Aldrovanda vesiculosa* and *Utricularia* spp.. European Exchange and Exhibition, Hortus Botanicus Leiden, 13.08.2017, Netherlands.
- (T) Poppinga S, Speck T (2017) How the Venus flytrap snaps revisited. SEB Annual Main Meeting, 03.-06.07.2017, Gothenburg, Sweden.
- (P) Poppinga S, Correa D, Menges A, Nestle N, Bruchmann B, Speck T (2017) Pine cone seed scales as role models for adaptive flaps in architecture. SEB Annual Main Meeting, 03.-06.07.2017, Gothenburg, Sweden.
- (\*T) (P) Poppinga S, Speck T (2015) Smart materials for sustainable architecture: Bio-inspired fiber-reinforced flap and scale structures for self-adaptive heat and humidity regulation. BASF-JONAS Family Days, Ludwigshafen, 12.-12.04.2017.
- 2016: (T) Poppinga S, Speck T (2016) 3D-gedruckte, bewegliche Strukturen inspiriert von langsamen und schnellen Pflanzenbewegungen. 8. Bionik-Kongress - Patente aus der Natur, Bremen, 21.-22.10.2016.
- (P) Westermeier AS, Born L, Sachse R, Vögele P, Körner A, Bischoff M, Poppinga S, Knippers J, Gresser GT, Speck T (2016) Catching inspiration from the carnivorous plant *Aldrovanda vesiculosa* - Biological role model of the shading system "Flectofold". 8. Bionik-Kongress - Patente aus der Natur, Bremen, 21.-22.10.2016.
- (P) Born L, Westermeier AS, Sachse R, Körner A, Bischoff M, Poppinga S, Knippers J, Speck T, Gresser GT (2016) Catching inspiration from the carnivorous plant *Aldrovanda vesiculosa* - Technical implementation of the shading system "Flectofold". 8. Bionik-Kongress - Patente aus der Natur, Bremen, 21.-22.10.2016.
- (P) Kampowski T, Mylo MD, Demandt S, Poppinga S, Speck T (2016) The impact of water stress on morphological and biomechanical properties of desiccation-tolerant and desiccation-intolerant Gesneriaceae. 8. Bionik-Kongress - Patente aus der Natur, Bremen, 21.-22.10.2016.
- (P) Kampowski T, Eberhard L, Gallenmüller F, Poppinga S, Speck T (2016) Medicinal leeches suck, don't they? Investigating the functional morphology and general attachment performance of *Hirudo verbana* suction discs. 8. Bionik-Kongress - Patente aus der Natur, Bremen, 21.-22.10.2016.
- (P) Poppinga S, Speck T (2016) Pine cone seed scales as role models for adaptive flaps in architecture. Status-workshop des Kompetenznetzes „Funktionelle Nanostrukturen“, 06.-07.10.2016, Bad Herrenalb.
- (\*T) Poppinga S, Speck T (2016) How plants move, and how the motion principles can inspire new technologies. Skype talk with Studio One, Berkeley University (Prof. Simon Schleicher), 26.09.2016.
- (\*T) Poppinga S (2016) New insights into the biomechanics and functional morphology of active carnivorous plant traps. International Carnivorous Plant Society Conference, Kew Gardens, London, UK (07.08.2016)
- (\*T) Poppinga S (2016) Snappers, suckers & catapults: How motile carnivorous plants catch prey. Talk accompanying the science festival at Kew Gardens, London, UK (06.08.2016)
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