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Last update: January 2018

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Original Papers in Peer Reviewed Journals & Peer Reviewed Books and Book Series

- (1) K. Bunk, S. Fink, T. Speck, T. Masselter (2017) **Branching morphology, vascular bundle arrangement and ontogenetic development in leaf insertion zones and ramifications of three arborescent Araliaceae species.** *Trees – Structure and Function* 31(6): 1793-1809. doi: 10.1007/s00468-017-1585-8
- (2) L. Born, F. A. Jonas, K. Bunk, T. Masselter, T. Speck, J. Knippers, G. T. Gresser (2016) **Branched structures in plants and architecture.** In: J. Knippers, K. Nickel und T. Speck (eds), *Biomimetic Research for Architecture and Building Construction: Biological Design and Integrative Structures*, 195-215. *Biologically-Inspired Systems*, Vol.1, Springer International Publishing, Switzerland

Original Papers in Other Journals & Books and Book Series

- (1) K. Bunk, F. A. Jonas, L. Born, G.T. Gresser, J. Knippers, T. Speck, T. Masselter (2017) **Vom Ast zum Palast.** In: J. Knippers, U. Schmid, T. Speck (Hrsg.): *Baubionik – Biologie beflügelt Architektur.* *Stuttgarter Beiträge zur Naturkunde, Serie C, Band 82*, 112-120. Stuttgart

Conference Proceedings

- (1) K. Bunk, J. M. Seitz, F. A. Jonas, J. Knippers, T. Speck, T. Masselter (2016) **How can branched building structures be optimized via analyzing plant branchings? Functional morphology, biomechanics and Finite Element (FE) simulation of Araliaceae ramifications.** In: A. B. Kesel & D. Zehren (Hrsg.), *Bionik: Patente aus der Natur. Tagungsbeiträge zum 8. Bionik-Kongress in Bremen*, 40-48. Bionik-Innovations-Centrum (B-I-C), Bremen
 - (2) T. Speck, T. Masselter, S. Poppinga, M. Thielen, G. Bauer, K. Bunk, L. Hesse, S. Schmier, A. Westermeier (2016) **Fibres in biology and technology: smart fibre-reinforced materials and structures inspired by plants and animals.** *Proceedings ECCM17 – 17th European Conference on Composite Materials*, 8pp. Munich/ Germany (electronically)
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Further Conference Contributions, Poster and Oral Presentations

(T) Talks, (P) Poster presentation (OP) Oral Poster presentation.

Presenter is underlined when several authors are listed.

2017

- (P) T. Lautenschläger, N. Noack, M. Rüggeberg, K.Bunk, C. Neinhuis: **Biomechanics of baobab fruit pedicle**. Engineering Life 2017: Form and Function Dresden (19.-20.10.2017)
- (T) K. Bunk, S. Krassovitski, L. Born, G. T. Gresser, T. Speck, T. Masselter: **Ontogeny, biomechanics and different growth habits of ‚finger-like‘ stem-branch attachment regions in the Araliaceae family**. SEB Annual Main Meeting Gothenburg (04.07.2017)

2016

- (T) K. Bunk, J. M. Seitz, F. A. Jonas, J. Knippers, T. Speck, T. Masselter: **How can branched building structures be optimized via analyzing plant branchings? Functional morphology, biomechanics and Finite Element (FE) simulation of Araliaceae ramifications**. 8. Bionik-Kongress Bremen (21.10.2016)
- (T) K. Bunk, J. M. Seitz, F. A. Jonas, J. Knippers, T. Speck, T. Masselter: **Functional morphology, biomechanics and Finite Element simulation of *Schefflera* ramifications for biomimetic applications in civil engineering**. SEB Annual Main Meeting Brighton (06.07.2016)
- (P, OP) K. Bunk, S. Fink, L. Born, F. Jonas, L. Hesse, T. Speck, T. Masselter: **Morphology and Anatomy of the *Schefflera* ramification and its potential for biomimetic implementations in civil engineering**. Euro Bio-inspired Materials 2016. Potsdam (23.02.2016)

2015

- (T) T. Masselter, K. Bunk, L. Hesse, T. Speck: **Branchings in Nature and Technics**. CRC/ Transregio 141 Conference 2015. Stuttgart. (12.11.2015)

Published Annual Reports and Scientific Reports

2017

- (1) K.Bunk, F. A. Jonas, J. Knipper, L.Born, G. T. Gresser, T.Speck., T.Masselter 2016. **‘Finger-like’ ramifications in Araliaceae as concept generators for the biomimetic optimisation of fibre-reinforced polymer branchings: Functional morphology, Biomechanics and Finite-Element (FE) model**. In: FIT Report 2016, 88-90
- (1a) K.Bunk, F. A. Jonas, J. Knipper, L.Born, G. T. Gresser, T.Speck., T.Masselter 2016. **‘Fingerförmige’ Verzweigungen bei Araliaceae als Vorbild für die biomimetische Optimierung faserverstärkter Kunststoffverzweigungen: Funktionsmorphologie, Biomechanik und Finite-Elemente (FE) Modell**. In: FIT Report 2016, 85-87

2016

- (1) K.Bunk, L.Born, G.Gresser, F.Jonas, J.Knippers, T.Speck., T.Masselter 2015. **The ramification of *Schefflera arboricola* as concept generator for the optimization of load-adapted fibre-reinforced polymer tubes in branched building structures**. In: FIT Report 2015, 32-34
- (1a) K.Bunk, L.Born, G.Gresser, F.Jonas, J.Knippers, T.Speck., T.Masselter 2015. **Die Verzweigung von *Schefflera arboricola* als Ideengeber für die Optimierung lastadaptierter faserverstärkter Kunststoffrohre in verzweigten Tragwerkstrukturen**. In: FIT Report 2015, 29-31