

## Dr. Simon J. Sonntag

CADFEM Medical Partner für *Simulationen im Zulassungsprozess*



### Berufliche Stationen

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|-------------------|--|
| 01/2009 - 12/2010 | <b>TomTec Imaging Systems, Unterschleißheim</b><br>Werkstudent   |
| 07/2011 - 03/2014 | <b>Department of Cardiovascular Engineering, RWTH Aachen Univ., Aachen</b><br>Wissenschaftlicher Mitarbeiter und Promotionsstudent |
| 03/2014 - 12/2016 | <b>Department of Cardiovascular Engineering, RWTH Aachen Univ., Aachen</b><br>Gruppenleitung Forschung                             |
| 03/2014 – 05/2019 | <b>enmodes GmbH, Aachen</b><br>Chief Operating Officer   |
| Aktuelle Position |  |
| seit 04/2019      | <b>vyson GmbH / Virtonomy.io, München</b><br>Chief Executive Officer & Founder   |

## Veröffentlichungen

*IL Pieper, SJ Sonntag, B Meyns, H Hadi, A Najar "Evaluation of the Novel Realheart Total Artificial Heart in a Pilot Human Fitting Study" (submitted)*

*WA Zhenglun, SJ Sonntag et al. "Computational fluid dynamics assessment associated with transcatheter heart valve prostheses: a position paper of the ISO Working Group." Cardiovascular engineering and technology 9.3: 289-299 (2018)*

*SJ Sonntag et al. "Virtual Fitting and Hemodynamic Simulation of the EVAHEART 2 Left Ventricular Assist Device and Double-Cuff Tipless Inflow Cannula." ASAIO journal: 1992 (2018)*

*J Vodiskar, ..., & SJ Sonntag "Using 3D Physical Modeling to Plan Surgical Corrections of Complex Congenital Heart Defects." J Thorac Cardiovasc Surg 65: 31-5 (2017)*

*J Wappenschmidt, SJ Sonntag et al. "Fluid dynamics in rotary piston blood pumps." Annals of biomedical engineering 45.3: 554-566 (2017)*

*M Neidlin, SJ Sonntag et al. "Investigation of hemodynamics during cardiopulmonary bypass: a multiscale multiphysics fluid-structure-interaction study." Medical engineering & physics 38.4: 380-390 (2016)*

*SJ Sonntag et al. "Effect of pulmonary conduit oversizing on hemodynamics in children." The International journal of artificial organs 38.10: 548-556 (2015)*

*SJ Sonntag et al. "Combined computational and experimental approach to improve the assessment of mitral regurgitation by echocardiography." Annals of biomedical engineering 42.5: 971-985 (2014)*

*SJ Sonntag et al. "Numerical washout study of a pulsatile total artificial heart." The International journal of artificial organs 37.3: 241-252 (2014)*

*SJ Sonntag et al. "Simulation of a pulsatile total artificial heart: Development of a partitioned Fluid Structure Interaction model." Journal of Fluids and Structures 38: 187-204 (2013)*

## Mitgliedschaften

European Society of Artificial Organs (ESAO) - Vorstandsmitglied

American Society for Artificial Internal Organs (ASAIO) - Mitglied

## Über CADFEM

Seit 1985 steht CADFEM für CAE-Kompetenz und arbeitet eng mit ANSYS Inc. zusammen. Heute sind wir ANSYS Elite Channel Partner und bieten alles, was über den Simulationserfolg

entscheidet, aus einer Hand: Software und IT-Lösungen. Beratung, Support, Engineering. Know-how-Transfer.