

Michel Versluis - Publication list

Current *h*-index = **64** - *Scopus*

Number of peer-reviewed publications: **241**

Number of citations: **13,238**

Researcher-ID: F-3541-2011

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Google Scholar: *h*-index **75**, citations **19,733**, i10-index **194**

2024

255. Delay-encoded cascaded waves for ultrafast ultrasound imaging.
Charlotte Nawijn, Michel Versluis, Tim Segers, and Guillaume Lajoinie.
(under review, 2024).
254. Frequency-domain decoding of cascaded dual-polarity waves for ultrafast ultrasound imaging.
Charlotte Nawijn, Joosje de Bakker, Tim Segers, Chris de Korte, Michel Versluis, Anne Saris, and Guillaume Lajoinie.
(under review, 2024).
253. Blood flow characteristics in the femoral bifurcation of healthy subjects.
Majorie van Helvert, Janna Ruisch, Joosje M.K. de Bakker, Anne E.C.M. Saris, Chris L. de Korte, Michel Versluis, Erik Groot Jebbink, and Michel M.P.J. Reijnen.
(under review, 2024).
252. Additive manufacturing of 3D flow-focusing millifluidics for the production of mono-sized curable microdroplets.
Muhammad Saeed Saleem, Timothy T.K. Chan, Michel Versluis, Domink Krug, and Guillaume Lajoinie.
(under review, 2024).
251. Role of surfactants on droplet formation in piezoacoustic inkjet printing across microsecond-to-second timescales.
Maaïke Rump, Christian Diddens, Uddalok Sen, Michel Versluis, Detlef Lohse, and Tim Segers.
(under review, 2024).
250. Waveform-specific performance of deep learning-based ultrasound super-resolution models.
Rienk Zorgdrager, Nathan Blanken, Jelmer Wolterink, Michel Versluis, and Guillaume Lajoinie.
(under review, 2024).
249. PROTEUS: a physically realistic contrast-enhanced ultrasound simulator – Part II: Imaging applications.
Nathan Blanken, Baptiste Heiles, Alina Kuliesh, Michel Versluis, Kartik Jain, David Maresca, and Guillaume Lajoinie.
(under review, 2024).
248. Design, fabrication and characterization of a cohort-based averaged flow phantom of an abdominal aortic aneurysm.
Jeffrey R. Nagel, Hadi Mirgolbabaee, Jelle Plomp, Ashkan Ghanbarzadeh-Dagheyan, Jaimy A. Simmering, Michel Versluis, Michel M. P. J. Reijnen, and Erik Groot Jebbink.
(under review, 2024).
247. Optimizing the radiopacity of an injectable polymer used for treatment of type II endoleak after endovascular aneurysm repair.
Jeffrey R. Nagel, Erik Groot Jebbink, Stefan P.M. Smorenburg, Arjan W.J. Hoksbergen, Rutger J. Lely, Michel Versluis, and Michel M.P.J. Reijnen.
(under review, 2024).
246. Dissolution and vaporization of a water droplet in oil exposed to a temperature ramp.
Muhammad Saeed Saleem, Michel Versluis, and Guillaume Lajoinie.
(under review, 2024).
245. Vaporization dynamics of a super-heated water-in-oil droplet: modeling and numerical solution.
Muhammad Saeed Saleem, Michel Versluis, and Guillaume Lajoinie.
(under review, 2024).

244. Ambient pressure sensitivity of subharmonically vibrating single microbubbles.
Sander Spiekhou, Yuchen Wang, Tim Segers, Klazina Kooiman, Michel Versluis, Jason Voorneveld, Nico de Jong, and Johannes G. Bosch.
(under review, 2024).
243. Stress-strain analysis of single ultrasound-driven microbubbles for viscoelastic shell characterization.
Charlotte L. Nawijn, Sander Spiekhou, Jason Voorneveld, Johannes G. Bosch, Michel Versluis, Tim Segers, and Guillaume P.R. Lajoinie.
(under review, 2024).
242. In-vivo validation of computational fluid dynamics for determining the pressure gradient for multi-segmental femoropopliteal disease.
L. van de Velde, L. Rutten, M. van Werkum, P. Cernohorsky, E. Groot Jebbink, M. Versluis, and M.M.P.J. Reijnen.
(under review, 2024).
241. Optimizing high-intensity focused ultrasound-induced immunogenic cell-death using passive cavitation mapping as a monitoring tool.
Yanou Engelen, Dmitri V. Krysko, Iuliia Effimova, Karine Breckpot, Michel Versluis, Stefaan De Smedt, Guillaume Lajoinie, and Ine Lentacker.
J. Control. Release (accepted, 2024).
240. Swirling flow quantification in helical stents using ultrasound velocimetry.
A. Ghanbarzadeh-Dagheyan, M. van Helvert, L. van de Velde, M.M.P.J. Reijnen, M. Versluis, and E. Groot Jebbink.
J. Endovasc. Ther. (accepted, 2024).
<https://doi.org/10.1177/15266028241283326>
239. Second order and transverse flow visualization through three-dimensional particle image velocimetry in millimetric ducts.
N.C. Harte, D. Obrist, M. Versluis, E. Groot Jebbink, M. Caversaccio, W. Wimmer, and G.P.R. Lajoinie.
Exp. Therm. Fluid Sci. **159**, 111296 (2024).
<https://doi.org/10.1016/j.expthermflusci.2024.111296>
238. Potential for three-dimensional ultrasound-guidance for radiofrequency ablation evaluated in an anthropomorphic thyroid nodule phantom.
Tim Boers, Sicco Braak, Wyger Brink, Michel Versluis, and Srirang Manohar.
Eur. Radiol. Exp. (accepted, 2024).
237. Deep learning-based segmentation of 3D ultrasound images of the thyroid.
Roxane Munsterman, Tim Boers, Sicco Braak, Jelmer M. Wolterink, Michel Versluis, and Srirang Manohar.
WFMUB Ultrasound Open **2**(2), 100055 (2024).
<https://doi.org/10.1016/j.wfumbo.2024.100055>
236. PROTEUS: a physically realistic contrast-enhanced ultrasound simulator – Part I: Numerical methods.
Nathan Blanken, Baptiste Heiles, Alina Kuliesh, Michel Versluis, Kartik Jain, David Maresca, and Guillaume Lajoinie.
IEEE TUFFC (on-line, 2024).
<https://doi.org/10.1109/TUFFC.2024.3427850>
235. Functionalized monodisperse microbubble production: Microfluidic method for fast, controlled, and automated removal of excess coating material.
Martin van den Broek, Michel Versluis, Albert van den Berg, and Tim Segers.
Microfluid. Nanofluid. **10**, 120 (2024).
<https://doi.org/10.1038/s41378-024-00760-y>
234. Are monodisperse phospholipid-coated microbubbles 'mono-acoustic'?
Sander Spiekhou, Benjamin van Elburg, Jason Voorneveld, Nico de Jong, Michel Versluis, Johannes G. Bosch, and Tim Segers.
Appl. Phys. Lett. **124**, 231601 (2024).
<https://doi.org/10.1063/5.0215736>

233. High-frame-rate ultrasound velocimetry in the healthy femoral bifurcation: a comparative study against 4-D flow magnetic resonance imaging.
Majorie van Helvert, Janna Ruisch, Joosje de Bakker, Anne Saris, Chris de Korte, Michel Versluis, Erik Groot Jebbink, and Michel Reijnen.
Ultrasound Med. Biol. (on-line, 2024).
<https://doi.org/10.1016/j.ultrasmedbio.2024.05.013>
232. Validation of ultrasound velocimetry and computational fluid dynamics for flow assessment in femoral artery stenotic disease.
Lennart van de Velde, Majorie van Helvert, Stefan Engelhard, Ashkan Ghanbarzadeh-Dagheyan, Hadi Mirgolbabaee, Jason Voorneveld, Guillaume Lajoinie, Michel Versluis, Michel Reijnen, and Erik Groot Jebbink.
J. Med. Imaging **11**(3), 037001 (2024).
<https://doi.org/10.1117/1.JMI.11.3.037001>
231. High-speed optical characterization of protein-and-nanoparticle-stabilized microbubbles for ultrasound-triggered drug release.
Charlotte L. Nawijn, Tim Segers, Guillaume Lajoinie, Sigrid Berg, Sofie Snipstad, Catharina de Lange Davies, and Michel Versluis.
Ultrasound Med. Biol. **50**(8), 1099–1107 (2024)
<https://doi.org/10.1016/j.ultrasmedbio.2024.03.011>
230. Lesion eccentricity plays a key role in determining the pressure gradient of serial stenotic lesions.
L. van de Velde, E. Groot Jebbink, K. Jain, M. Versluis, and M.M.P.J. Reijnen.
Cardiovasc. Intervent. Radiol. **47**(5), 533–542 (2024).
<https://doi.org/10.1007/s00270-024-03708-x>
229. A unifying Rayleigh-Plesset-type equation for bubbles in viscoelastic media.
Alexandros T. Oratis, Kay Dijs, Guillaume Lajoinie, Michel Versluis, and Jacco H. Snoeijer.
J. Acoust. Soc. Am. **155**, 1593–1605 (2024).
<https://doi.org/10.1121/10.0024984>
228. An anthropomorphic thyroid phantom for ultrasound-guided radiofrequency ablation of nodules.
Tim Boers, Wyger Brink, Leonardo Bianchi, Paola Saccomandi, Johan van Hespren, Germen Wennemars, Sicco Braak, Michel Versluis, and Srirang Manohar.
Med. Phys. **51**(2), 826–838 (2024).
<https://doi.org/10.1002/mp.16906>

2023

227. Ultrasound particle image velocimetry to investigate potential hemodynamic causes of limb thrombosis after endovascular aneurysm repair with the Anaconda device.
H. Mirgolbabaee, L. van de Velde, R. H. Geelkerken, M. Versluis, E. Groot Jebbink, M.M.P.J. Reijnen
J. Endovasc. Ther. (on-line, 2023).
<https://doi.org/10.1177/15266028231219988>
226. Dependence of sonoporation efficiency on microbubble size: an in vitro monodisperse microbubble study.
Benjamin van Elburg, Joke Deprez, Martin van den Broek, Stefaan C. De Smedt, Michel Versluis, Guillaume Lajoinie, Ine Lentacker, and Tim Segers.
J. Control. Release **363**, 747–755 (2023).
<https://doi.org/10.1016/j.jconrel.2023.09.047>
225. Microbubble formation by flow-focusing: role of gas and liquid properties, and channel geometry.
Sarah Cleve, Anne Lassus, Christian Diddens, Benjamin van Elburg, Emmanuel Gaud, Samir Cherkaoui, Michel Versluis, Tim Segers, and Guillaume Lajoinie.
J. Fluid Mech. **972**, A27 (2023).
<https://doi.org/10.1017/jfm.2023.704>
224. Coated microbubbles exploit shell buckling to swim.
Georges Chabouh, Marcel Mokbel, Benjamin van Elburg, Michel Versluis, Tim Segers, Sebastian Aland, Catherine Quilliet, and Gwennou Coupier.
Nature Comm. Eng. **2**, 63 (2023).
<https://doi.org/10.1038/s44172-023-00113-z>

223. Computational Fluid Dynamics for the prediction of endograft thrombosis in the superficial femoral artery.
Lennart van de Velde, Erik Groot Jebbink, Rob Hagmeijer, Michel Versluis, and Michel M.P.J. Reijnen.
J. Endovasc. Ther. **30**(4), 615–627 (2023).
<https://doi.org/10.1177/15266028221091890>
222. Selective evaporation at the nozzle exit in piezoacoustic inkjet printing.
Maaïke Rump, Uddalok Sen, Roger Jeurissen, Hans Reinten, Michel Versluis, Detlef Lohse, Christian Diddens, and Tim Segers.
Phys. Rev. Appl. **19**, 054056 (2023)
<https://doi.org/10.1103/PhysRevApplied.19.054056>
- selected as Editors' Suggestion.
and see also: Nature Reviews Physics
Drying droplets at a printhead nozzle
<https://doi.org/10.1038/s42254-023-00606-y>
221. Ultrasound imaging in thyroid nodule diagnosis, therapy and follow-up: current status and future trends.
T. Boers, S.J. Braak, N.E.T. Rikken, M. Versluis, and S. Manohar.
J. Clin. Ultrasound **2023**, 1-14 (2023).
<https://doi.org/10.1002/jcu.23430>.
220. Buckling of lipidic ultrasound contrast agents under quasi-static load.
Georges Chabouh, Benjamin van Elburg, Michel Versluis, Tim Segers, Catherine Quilliet, and Gwennou Coupier.
Phil. Trans. R. Soc. A. **381**, 20220025 (2023).
<https://doi.org/10.1098/rsta.2022.0025>

2022

219. Vorticity-induced flow-focusing leads to bubble entrainment in an inkjet printhead: synchrotron X-ray and volume-of-fluid visualizations.
Maaïke Rump, Youssef Saade, Uddalok Sen, Kamel Fezzaa, Michel Versluis, Detlef Lohse, and Tim Segers.
Phys. Rev. Fluids **7**, 104004 (2022).
<https://doi.org/10.1103/PhysRevFluids.7.104004>
218. Irrigant flow in the root canal during ultrasonic activation: a numerical fluid-structure interaction model and its validation.
C. Boutsoukis, B. Verhaagen, L.W.M. van der Sluis, and M. Versluis
Int. Endod. J. **55**, 938-949 (2022).
<https://doi.org/10.1111/iej.13791>
217. Time-resolved absolute radius estimation of vibrating contrast microbubbles using an acoustical camera.
Sander Spiekhout, Jason Voorneveld, Benjamin van Elburg, Guillaume Renaud, Tim Segers, Guillaume P.R. Lajoinie, Michel Versluis, Martin D. Verweij, Nico de Jong, and Johannes G. Bosch.
J. Acoust. Soc. Am. **151**(6), 3993–4003 (2022).
<https://doi.org/10.1121/10.0011619>
216. A theoretical framework for acoustically produced luminescence: from thermometry to ultrasound pressure field mapping.
Simon E. Michels, Guillaume Lajoinie, Saeid Hedayatrasa, Michel Versluis, Mathias Kersemans, and Philippe Smet.
J. Lumin. **248**:118940 (2022).
<https://doi.org/10.1016/j.jlumin.2022.118940>
215. The response of dual-species bacterial biofilm to 2% and 5% NaOCl mixed with etidronic acid: real-time evaluation by optical coherence tomography.
M.M.B. Borges, R.J.B. Dijkstra, F.B. Andrade, M.A.H. Duarte, M. Versluis, L.W.M. van der Sluis, and X. Petridis.
Int. Endod. J. **55**(7), 758–771 (2022).
<https://doi.org/10.1111/iej.13754>

214. Super-resolved microbubble localization in single-channel ultrasound RF signals using deep learning.
Nathan Blanken, Jelmer M. Wolterink, Hervé Delingette, Christoph Brune, Michel Versluis, and Guillaume Lajoinie.
IEEE Trans. Med. Imaging **41**(9), 2532–2542 (2022).
<https://doi.org/10.1109/tmi.2022.3166443>
213. High-frame-rate contrast-enhanced ultrasound particle image velocimetry in patients with a stented superficial femoral artery: a feasibility study.
Majorie van Helvert, Stefan Engelhard, Jason Voorneveld, Marije van der Vee, Johan G. Bosch, Michel Versluis, Erik Groot Jebbink, and Michel M. P. J. Reijnen.
Eur. Radiol. Exp. **6**:32 (2022).
<https://doi.org/10.1186/s41747-022-00278-w>
212. Evaluation of liposome-loaded microbubbles as theranostic tool in murine collagen-induced arthritis.
Joke Deprez, Silke Roovers, Guillaume Lajoinie, Heleen Dewitte, Tine Decruy, Julie Coudenys, Benedicte Descamps, Christian Vanhove, Michel Versluis, Dirk Elewaut, Peggy Jacques, Stefaan C. De Smedt, and Ine Lentacker
Sci. Pharm. **90**(1), 17 (2022)
<https://doi.org/10.3390/scipharm90010017>
211. The Supera interwoven nitinol stent as a flow diverting configuration in popliteal aneurysms.
L. van de Velde, E. Groot Jebbink, B.A. Zambrano, M. Versluis, J. Tessarek, and M.M.P.J. Reijnen.
Cardiovasc. Intervent. Radiol. **45**, 858–866 (2022).
<https://doi.org/10.1007/s00270-022-03118-x>
210. Resonance behavior of a compliant piezo-driven inkjet channel with an entrained microbubble.
Hans Reinten, Yogesh Jethani, Arjan Fraters, Roger Jeurissen, Detlef Lohse, Michel Versluis, and Tim Segers.
J. Acoust. Soc. Am. **151**(4), 2524–2557 (2022).
<https://doi.org/10.1121/10.0009784>
209. Blood flow quantification with high-frame-rate contrast-enhanced ultrasound velocimetry in stented aortoiliac arteries: in vivo feasibility.
Stefan Engelhard, Majorie van Helvert, Jason Voorneveld, Johan G. Bosch, Guillaume Lajoinie, Erik Groot Jebbink, Michel M.P.J. Reijnen, and Michel Versluis.
Ultrasound Med. Biol. **48**(8), 1518–1527 (2022).
<https://doi.org/10.1016/j.ultrasmedbio.2022.03.016>

2021

208. Time-resolved velocity and pressure field quantification in a flow-focusing device for ultrafast microbubble production.
Sarah Cleve, Christian Diddens, Tim Segers, Guillaume Lajoinie, and Michel Versluis.
Phys. Rev. Fluids **6**, 114202 (2021).
<https://doi.org/10.1103/PhysRevFluids.6.114202>
207. Meniscus oscillations driven by flow-focusing leading to bubble pinch-off and entrainment in a piezo-acoustic inkjet nozzle
Arjan Fraters, Maaïke Rump, Roger Jeurissen, Marc van den Berg, Youri de Loore, Hans Reinten, Herman Wijshoff, Devaraj van der Meer, Detlef Lohse, Michel Versluis, and Tim Segers.
Phys. Rev. Appl. **16**, 044052 (2021).
<https://doi.org/10.1103/PhysRevApplied.16.044052>
206. The retraction of jetted slender viscoelastic liquid filaments.
Uddalok Sen, Charu Datt, Tim Segers, Herman Wijshoff, Jacco Snoeijer, Michel Versluis, and Detlef Lohse.
J. Fluid Mech. **929**, A25 (2021).
<https://doi.org/10.1017/jfm.2021.855>

205. Ultrasound velocimetry in participants with aortoiliac occlusive disease.
Stefan Engelhard, Majorie van Helvert, Jason Voorneveld, Johan G. Bosch, Guillaume Lajoinie, Michel Versluis, Erik Groot Jebbink, and Michel M.P.J. Reijnen.
Radiology **301**(2), 332–338 (2021).
<https://doi.org/10.1148/radiol.2021210454>
204. Matrix 3D ultrasound-assisted thyroid nodule volume estimation and RF ablation: a phantom study.
Tim Boers, Sicco J. Braak, Michel Versluis, and Srirang Manohar.
Eur. Radiol. Exp. **5**:31 (2021).
<https://doi.org/10.1186/s41747-021-00230-4>
203. Blood flow quantification in peripheral arterial disease: emerging diagnostic techniques in vascular surgery (review).
Stefan Engelhard, Lennart van de Velde, Erik Groot Jebbink, Kartik Jain, Jos Westenberg, Clark J. Zeebregts, Michel Versluis, and Michel M.P.J. Reijnen.
Surg. Technol. Int. **38**, 1410 (2021)
<https://doi.org/10.52198/21.sti.38.cv1410>
202. Hemodynamic comparison of AFX stent-graft and CERAB configuration for treatment of aortoiliac occlusive disease.
Albert Chong, Hadi Mirgolbabaee, Zhonghua Sun, Lennart van de Velde, Shirley Jansen, Barry Doyle, Michel Versluis, Michel M.P.J. Reijnen, and Erik Groot Jebbink.
J. Endovasc. Ther. **28**(4), 623–635 (2021).
<https://doi.org/10.1177/15266028211016431>
201. Fast and high-resolution ultrasound pressure field mapping using luminescent membranes.
Simon E. Michels, Mathias Kersemans, Michel Versluis, Guillaume Lajoinie and Philippe F. Smet.
Adv. Opt. Mater. **2021**, 2100085 (2021).
<https://doi.org/10.1002/adom.202100085>
200. Feedback-controlled microbubble generator producing one million monodisperse bubbles per second.
Benjamin van Elburg, Gonzalo Collado Lara, Gert-Wim Bruggert, Tim Segers, Michel Versluis and Guillaume Lajoinie.
Rev. Sci. Instrum. **92**, 035110 (2021).
<https://doi.org/10.1063/5.0032140>
199. Multi-time-scale microscopy methods for the characterization of fluorescently-labeled microbubbles aimed at ultrasound-triggered drug release.
Charlotte Nawijn, Tim Segers, Guillaume Lajoinie, Ýrr Mørch, Sigrid Berg, Sofie Snipstad, Catharina de Lange Davies, and Michel Versluis.
J. Vis. Exp. **172**, e62251 (2021).
<https://doi.org/10.3791/62251>
198. Biofilm removal from an artificial isthmus and lateral canal during syringe irrigation at various flow rates: A combined experimental and Computational Fluid Dynamics approach.
T.C. Pereira, C. Boutsoukis, R.J.B. Dijkstra, X. Petridis, M. Versluis, F.B. de Andrade, W.J. van de Meer, P. Sharma, L.W.M. van der Sluis, and M.V.R. So.
Int. Endod. J. **54**, 427–438 (2021).
<https://doi.org/10.1111/iej.13420>
197. High-frequency acoustic droplet vaporization is initiated by resonance.
Guillaume Lajoinie, Tim Segers and Michel Versluis.
Phys. Rev. Lett. **126**, 034501 (2021).
<https://doi.org/10.1103/PhysRevLett.126.034501>
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2020

196. Evaporation-induced crystallization of surfactants in sessile multicomponent droplets.
Yaxing Li, Valentin Salvator, Herman Wijshoff, Michel Versluis, and Detlef Lohse.
Langmuir **36**, 7545–7552 (2020).
<https://doi.org/10.1021/acs.langmuir.0c01169>

195. Evaporating droplets on oil-wetted surfaces: suppression of the coffee-stain effect.
Yaxing Li, Christian Diddens, Tim Segers, Herman Wijshoff, Michel Versluis, and Detlef Lohse.
Proc. Natl. Acad. Sci. USA **117**, 16763 (2020).
<https://doi.org/10.1073/pnas.2006153117>
194. Rayleigh-Taylor instability by segregation in an evaporating multicomponent microdroplet.
Yaxing Li, Christian Diddens, Tim Segers, Herman Wijshoff, Michel Versluis, and Detlef Lohse.
J. Fluid Mech. **899**, A22 (2020).
<https://doi.org/10.1017/jfm.2020.449>
193. Focused ultrasound for opening blood-brain barrier and drug delivery monitored with positron emission tomography.
Wejdan M. Arif, Philip H. Elsinga, Carmen Gasca-Salas, Michel Versluis, Raúl Martínez-Fernández, Rudi A.J.O. Dierckx, Ronald J.H. Borra and Gert Luurtsema.
J. Control. Release **324**, 303–316 (2020).
<https://doi.org/10.1016/j.jconrel.2020.05.020>
192. Three-phase vaporization theory for laser-activated microcapsules.
Guillaume Lajoinie, Mirjam Visscher, Emilie Blazejewski, Gert Veldhuis, and Michel Versluis.
Photoacoustics **19**, 100185 (2020).
<https://doi.org/10.1016/j.pacs.2020.100185>
191. Non-axisymmetric effects in drop-on-demand piezo-acoustic inkjet printing.
Mark-Jan van der Meulen, Hans Reinten, Herman Wijshoff, Michel Versluis, Detlef Lohse, and Paul Steen.
Phys. Rev. Appl. **13**, 054071 (2020).
<https://doi.org/10.1103/PhysRevApplied.13.054071>
190. Ultrasound contrast agents modeling: a review.
Michel Versluis, Eleanor Stride, Guillaume Lajoinie, Benjamin Dollet, and Tim Segers.
Ultrasound Med. Biol. **46**, 2117–2144 (2020).
<https://doi.org/10.1016/j.ultrasmedbio.2020.04.014>
189. Foam-free monodisperse lipid-coated ultrasound contrast agent synthesis by flow-focusing through multi-gas-component microbubble stabilization.
Tim Segers, Emmanuel Gaud, Gilles Casqueiro, Anne Lassus, Michel Versluis, and Peter Frinking.
Appl. Phys. Lett. **116**, 173701 (2020).
<https://doi.org/10.1063/5.0003722>
see also: American Institute of Physics Scilight
Method developed for creating foam-free monodisperse bubbles as ultrasound contrast agents
<https://doi.org/10.1063/10.0001213>
188. Microfluidics control the ballistic energy of thermocavitation liquid jets for needle-free injections.
Loreto Oyarte Gálvez, Arjan Fraters, Herman Offerhaus, Michel Versluis, Ian Hunter, and David Fernandez Rivas.
J. Appl. Phys. **127**, 104901 (2020).
<https://doi.org/10.1063/1.5140264>
187. A novel roller pump for physiological flow.
Albert Chong, Zhonghua Sun, Lennart van de Velde, Shirley Jansen, Michel Versluis, Michel M.P.J. Reijnen, and Erik Groot Jebbink.
Artificial Organs. **44**, 818–826 (2020).
<https://doi.org/10.1111/aor.13670>
186. Microbubble Agents: New Directions (review).
Eleanor Stride, Tim Segers, Guillaume Lajoinie, Samir Cherkaoui, Thierry Bettinger, Michel Versluis, and Mark Borden.
Ultrasound Med. Biol. **46**, 1326–1343 (2020).
<https://doi.org/10.1016/j.ultrasmedbio.2020.01.027>
185. Validation of a novel methodology to evaluate changes in the flare geometry of renovisceral bridging stent-grafts after fenestrated endovascular aneurysm repair.
S.P. Overeem, R.C.L. Schuurmann, M. Schumacher, M.F.C. Jolink, M. Ketel, B. Nijendijk, C.H. Slump, M. Versluis, and J.P.P.M. de Vries.
J. Endovasc. Ther. **27**, 436–444 (2020).
<https://doi.org/10.1177/1526602820915932>

184. Secondary tail formation and breakup in piezo-acoustic inkjet printing: femtoliter droplets captured in flight.
Arjan Fraters, Roger Jeurissen, Marc van den Berg, Hans Reinten, Herman Wijshoff, Detlef Lohse, Michel Versluis, and Tim Segers.
Phys. Rev. Appl. **13**, 024075 (2020).
<https://doi.org/10.1103/PhysRevApplied.13.024075>

2019

183. Ultrasound-sensitive liposomes for triggered macromolecular drug delivery.
Maria De Matos, Roel Deckers, Guillaume Lajoinie, Benjamin van Elburg, Michel Versluis, Raymond Schiffelers, and Robbert Jan Kok.
Frontiers Pharmacology **10**, 1463 (2019).
doi:10.3389/fphar.2019.01463
182. Sonoprinting liposomes on tumor spheroids by microbubbles and ultrasound.
Silke Roovers, Joke Deprez, Dwi Priwitaningrum, Guillaume Lajoinie, Nicolas Rivron, Heidi Declercq, Olivier De Wever, Eleanor Stride, Séverine Le Gac, Michel Versluis, Jai Prakash, Ine Lentacker, and Stefaan De Smedt.
J. Control. Release **316**, 79–92 (2019).
doi:10.1016/j.jconrel.2019.10.051
181. Inkjet nozzle failure by heterogeneous nucleation: bubble entrainment, cavitation, and diffusive growth.
Arjan Fraters, Marc van den Berg, Youri de Loore, Hans Reinten, Herman Wijshoff, Detlef Lohse, Michel Versluis, and Tim Segers.
Phys. Rev. Applied **12**, 064019 (2019).
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