News & Highlights

Three new members for the Physics of Fluids & Soft Matter advisory committee
As of 1 January 2021 three researchers have joined the Physics of Fluids & Soft Matter advisory committee: Prof. dr. Jacco Snoeijer (UT), Dr. Daniela Kraft (UL), and Dr. M.J. Pueschel (DIFFER). They are appointed for a first term of three years. Prof. dr. Michel Versluis (UT) and Prof. dr. Martin van Hecke (UL) have retired from the advisory committee.

Kees Storm appointed new chairman of the NWO Physics Round Table
As of 30 September 2020, Kees Storm of Eindhoven University of Technology has been appointed chairman of the Physics Round Table. He is succeeding Gijsje Koenderink of TU Delft, who will continue as a member of this advisory round table. Read more...

Large-scale drag tests with fishing nets for sustainable fishery
At the beginning of October, a basin of the Maritime Research Institute Netherlands (MARIN) contained fishing gear 4.5 meters in length, 20 meters wide and 2.5 tons in weight. Read more...

MARIN opens new research facility The Atmosphere
On 19 October 2020 Eppo Bruins, Member of Parliament for the ChristenUnie, officially opened ‘The Atmosphere’, a new facility at MARIN. Read more...

Startup IamFluidics in the spotlights by winning several awards
IamFluidics, a startup company using in-air microfluidics technology, has been recognized as one of the top 10 most groundbreaking academic startups in the Netherlands by the Dutch Academic Startup Competition. In addition, it was mentioned in the top 5 biofabrication startups worldwide. Read more...

Do you have a news flash or research highlight interesting for the Dutch FSM community?
Send it to: ResearchCommunity-FSM@nwo.nl

NWO Grants

ENW Open Competition KLEIN – round 7 (link)
Let’s twist again: why colloidal bananas bend and pears splay - Prof. dr. ir. Marjolein Dijkstra (UU)

ENW Open Competition KLEIN – round 8 (link)
Designing a membrane-bound liquid cortex for shaping synthetic cells - Dr. Siddharth Deshpande (WUR)

Sediment deposition on continental slopes from combined bottom currents and sediment gravity flows - Dr. Joris Eggenhuisen (UU)

FLUME-ET: Fluidization of mass flows by metastable volatiles on extra-terrestrial bodies - Dr. Tjalling de Haas (UU)
NWO news update for the FSM research community

**OTP** ([link](#))
Plasma for Clean Air - Dr. ir. T. Huiskamp, Eindhoven University of Technology (18710)

**ENW Open Competition XS** ([link](#))
Hybrid Soft Robotic Implant (HyBORG) to modulate foreign body response - V. Vaithilingam (Maastricht UMC+)

Gelling by printing - Dr. M.K. Wlodarczyk-Biegun (Rijksuniversiteit Groningen)

**TALENT**

**VENI 2020** ([awarded projects](#))
Improved radiotherapy: microbubbles will lead the way - Dr. E. Groot Jebbink, University of Twente

Unravelling the aerodynamics of mating mosquitoes - Dr. A-J. (Abel-John) Buchner (m), Delft University of Technology

**VIDI 2019** ([awarded projects](#))
Unravelling glass formation - Dr. L.M.C. (Liesbeth) Janssen (f), Eindhoven University of Technology

Glass has been used for centuries and continues to find many new industrial applications. However, the underlying physics of glass formation remains notoriously poorly understood. This research will establish a new theory of glass formation which, leveraged with advanced computer methods, will help to unravel the physical principles of vitrification.

Anisotropic and deformable microswimmers - Dr. D.J. (Daniela) Kraft (f), Leiden University

Bacteria and algae use shape changes and elasticity to direct their motion. In this project, the researchers will model their behavior by fabricating synthetic elastic microswimmers of various shapes using a 3D printer, and study how they move and interact.

Rapid flight manoeuvres in flies, mosquitoes and drones - Dr.ir. F.T. (Florian) Muijres (m), Wageningen University

Flies and mosquitoes are extremely manoeuvrable: by precise wingbeat movement adjustments, they accurately manipulate aerodynamic forces on their wings. By studying the bio-fluid-mechanics and control of flight manoeuvres in two-winged insect, researchers aim to improve mosquito traps and make drones more manoeuvrable.

The next generation of fluid flow models - Dr.ir. B. (Benjamin) Sanderse (m), CWI

Fluid flow is everywhere around us: from air in windfarms to blood in arteries. Such flows are simulated using models that are simplifications of reality. In this project a new simplification procedure will be developed, based on discrete rather than continuous mathematics, improving accuracy, generality, and easing the derivation.

Bijel templated membranes for molecular separations - Dr. M.F. (Martin) Haase (m), Utrecht University

Filters to turn seawater into freshwater are fundamentally limited in their water throughput. Researchers will design a sponge-like material with up to 1000x larger filter area compared to existing technologies. Liquid transport in the filter will be optimized to considerately reduce cost for desalination plants and to miniaturize portable filters.

**Other**

**Take-off** ([link](#))
Needle-free microjet injector - Dr. D. Fernandez Rivas, Universiteit Twente
NWO calls

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<td><strong>ENW-M</strong> Continuous application</td>
<td>VENI 2021 20 May 2021 (full proposal)</td>
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<td><strong>ENW-XL</strong> 15 Apr 2021 (pre-proposal)</td>
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<td>Support for NWA route management Closed</td>
<td>Demand-driven Partnerships for consortia 16 Feb 2021 (appropriateness check)</td>
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<td><strong>TTW OTP</strong> Continuous application</td>
<td>VICI 2020 25 March 2021 (pre-proposal)</td>
<td>NWA Science communication Closed</td>
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* PPP: Public-private partnerships; KIC: Knowledge and Innovation Convenant

Events & meetings

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<td>Physics@Veldhoven</td>
<td>18 – 20 Jan 2021</td>
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For questions, ideas and news items, please contact:
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