

## Daniel Bonn wins Physica Prize 2021

The Physica Prize 2021 has been awarded to professor Daniel Bonn (University of Amsterdam). He is one of the foremost experts in the field of soft matter, which comprises a wide range of materials that are easily deformed, such as plastics or gels. He revolutionized the scientific fields that deal with systems that are neither solid nor liquid ('complex fluids') and with the interaction between liquids and solids ('wetting').

Most of his research is centred around materials that appear in everyday life. Blood, shampoo and oil are examples of complex fluids, which sometimes act as liquids and sometimes as solids. Daniel Bonn's breakthrough work on the phase transition between solid-like and liquid-like behaviour has led to a much more complete understanding of the underlying physics. In transporting complex fluids through our veins or through pipelines, instabilities appear that are not present in simpler fluids such as water. Bonn was one of the key founders of this new area of research in non-linear physics, which many groups worldwide are working on now.

The deposition of liquids on top of a solid is interesting. Does the liquid form a droplet or a continuous film? Bonn is a pioneer in this area called wetting.

Bonn combines this fundamental research with application-driven innovations. His fundamental breakthroughs directly feed into applications such as blood spatter analysis for crime scene investigation and environmentally friendlier pesticide spraying. His work even helped resolve the age-old mystery of how the Egyptians built their pyramids. His paper on this topic went viral.

At the start of the corona crisis, Bonn realized that his experience and knowledge could be fruitfully applied to important questions related to spreading of the coronavirus, in particular around droplets and aerosols. He and his work played an important role in the newspapers and on Dutch tv.

Daniel Bonn is involved in many industrial collaborations. Finally, he is known as an inspiring and excellent supervisor and mentor. Since 2000, an impressive number of 42 PhD students have graduated under his supervision.

The Physica Prize is awarded to an eminent physicist, who is active in the Netherlands. A jury awards the prize after consultation of several representatives of the Dutch physics community. The jury comprises of the president of the [Netherlands' Physical Society](#), the president of [Foundation Physica](#) and a former laureate.

Bonn receives the prize at the online conference [FYSICA 2021](#) on Friday April 16<sup>th</sup>, when he will give the Physica Lecture. We are looking forward to that moment! The [Nederlands Tijdschrift voor Natuurkunde](#) pays attention to Daniel Bonn's research in the editions of April and May 2021.