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*Art, outreach and pattern formation*

For the past several years, I have been experimenting with the boundary between art and science. I have repurposed my scientific images of pattern formation experiments and pattern-forming natural phenomena by presenting them as art. I have exhibiting images and videos in art galleries and juried art shows. I have brought artists into my research lab for several hands-on workshops. I am the co-organizer of the "ArtSci Salon", an evening meet-up group at the Fields Institute of Mathematical Science in Toronto. I have released a trove of icicle shape data for free use under the Creative Commons. I have collaborated with sound artists and composers to use pattern formation images and videos as input to their creative processes. All these activities can be viewed equally as art-making or as scientific outreach. The scientific field of pattern formation has developed a distinct aesthetic sensibility, informed by mathematics and physics, but inherently visual and dynamic. This aesthetic is an essential motivation for this work. This talk will describe my experiences in this "application" of pattern formation to making, exhibiting and discussing art. My experience shows that unmodified scientific images can be well received as art and generate wide-ranging conversations across traditionally separate disciplines. The art world offers an interesting venue for science outreach activities, as well as being a lot of fun to explore.