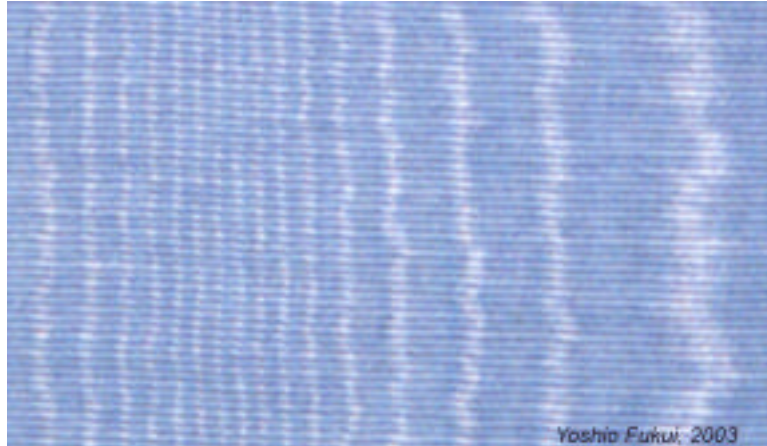
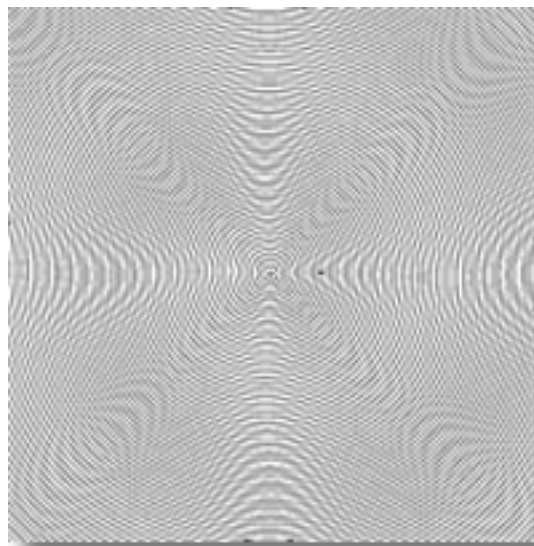


Moiré Pattern

Originally, the term moiré pattern came from a pattern reminiscent to “mohair” of Angola furs. In modern days, the moiré pattern is made by weaving synthetic fibers. A photograph below shows a piece of cloth having a moiré pattern.

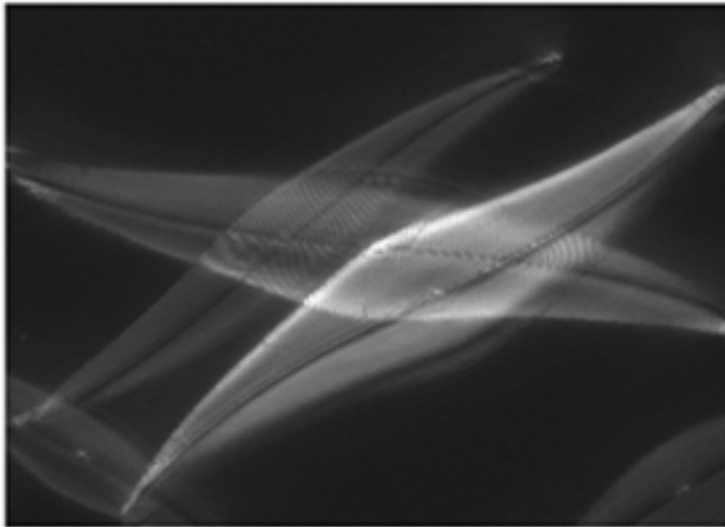


In many ways, when a layer of transparent pattern is superimposed with another, optical interference brings in a type of pattern similar to the moiré pattern. Below is an example of this type of pattern created by wittingly overlapping two layers of identical radial pattern with slight misalignment. In digital imaging, moiré pattern can be created as a result of imperfect system integration such as improper zoom lens being installed in front of a CCD camera. This represents technical problems intrinsic to digital signal processing called “**aliasing**”. For more detail, refer to “**Nyquist factor**”.

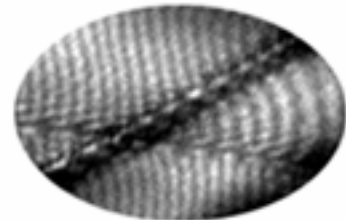


In real world of microscopy, moiré pattern can be created by simple interference of light transmitting samples, if the sample contains overlapping fine registration of patterns. Below is an example of moiré pattern generated by dark-field optics viewing a diatom *P. angulatum*, consisting of sub-micrometer pitch ridges.

Pleurosigma angulatum "Moiré pattern"



(Dark-field)



Yoshio Fukui (2003)