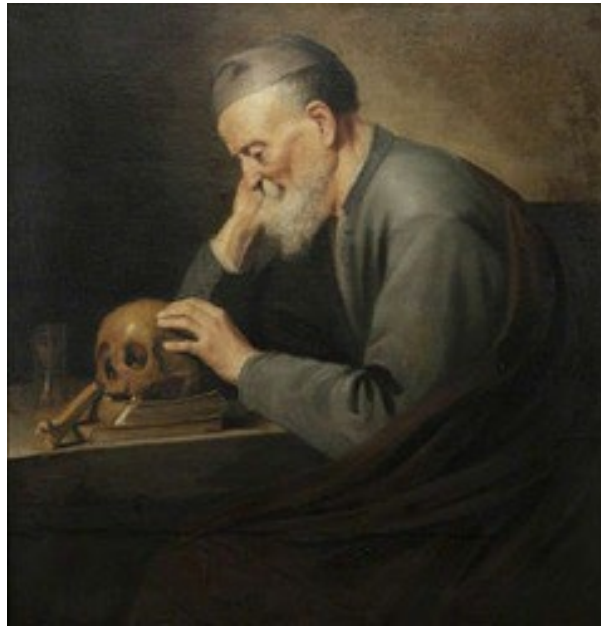




# PHYSIKALISCHES KOLLOQUIUM

AM 27. MAI 2024 UM 17 UHR C.T.  
IM GROßEN HÖRSAAL



**ACTIVE SELF DISASSEMBLY:  
TOWARDS A PHYSICS OF DEATH**  
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The concept of 'self-assembly' was first invented by two physicists in 1962 to explain the construction of viral capsids. Since then, the idea that biology is 'self-assembled soft matter' has become commonplace. However, biology at all length scales – from molecules through cells and organisms to ecosystems – also depends vitally on processes of active self-disassembly. Living systems have evolved to use energy to deconstruct part or all of themselves in highly-organised ways, and feedback building blocks to self-assembly processes. 'Programmed (or regulated) cell death' in our tissues is a good example, but 'death' at all levels has been highly-evolved to enable life to function. In this talk, I consider what such a 'physics of death' may look like, report briefly some ongoing work in this direction, and explain why such research may have a vital role to play in the drive towards a more sustainable 'circular economy'.

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