

Course: Fibre Water Interactions

KTH Course FCK 3111

**Course leaders:** Prof. Lars Wågberg and Dr Per Larsson

## Date: November 13–16, 2023

**Place:** KTH-Teknikringen 56

### Principal lecturers:

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# Monday, 13th of November, Rånby Room Time/lecturer

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| 1. Fibre, paper and water interactions: Problem specification, importance – New products
2. Thermodynamics of water vapour adsorption to fibres
3. Swelling of polyelectrolyte gels
 | 9–10 LW10–12 TL 13–15 PH |

#### Tuesday, 14th of November WWSC Conference room Time/lecturer

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| 1. Swelling of cellulose fibres
2. Influence of fibre composition on moisture sorption

and fibre swelling1. Influence of moisture on mechanical properties of paper: Fibre and joint properties
 | 9–10 LW10–12 LS13–15 SÖ |

# Wednesday, 15th of November Rånby Room Time/lecturer

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| 1. Effect of moisture on the performance of cellulose-based films and cellulose-containing composites
2. Dimensional stability of paper
3. Wetting fundamentals
4. Capillary penetration and superhydrophobicity – Fundamentals and applications
 | 9–10 PL10–12 PL 13–15 AS15-17 LW |

#### Thursday, 16th of November WWSC Conference Room Time/lecturer

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| 1. Liquid absorption in hygiene products
2. Influence of moisture on mechanical properties of paper and board
3. Mechanosorptive effects in fibres, paper and cellulosic films
 | 8–10 CH10–12 MN13-15 SL |
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