# Teaching

Caroline Lasser

March 24, 2023

**Compact courses**

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|---|---|
| July 2022 | Numerical methods for quantum dynamics<br>Summer school *Computational Mathematics* in Gdansk |
| March 2020 | Numerical analysis of high-dimensional quantum dynamics<br>PhD course, Ecole de Ponts Paris Tech |

**Technische Universität München, 2017–2023**

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| WS 2022/23 | Lecture *Numerical Programming I*<br>Seminar *Quantum Dynamics in Chemistry* |
| SS 2021 | Lecture *Numerical Programming II* |
| WS 2020/21 | Lecture *Numerical Programming I*<br>Seminar *Algorithms from the book* |
| SS 2020 | Lecture *Elements of Harmonic Analysis*<br>Workshop *Ebene und Raum*<br>Seminar *Computing Highly Oscillatory Integrals* |
| SS 2019 | Lecture *Einführung in die Mathematik II*<br>Vorlesung *Numerische Mathematik (EI)*<br>Seminar *Molecular Dynamics* |
| WS 2018/19 | Lecture *Einführung in die Mathematik I*<br>Lecture *Elements of Harmonic Analysis*<br>Seminar *Frames* |
| SS 2018 | Lecture *Einführung in die Mathematik II*<br>Lecture *Quantum Dynamics III*<br>Seminar *Quantum Control*<br>Workshop *Komplexe Zahlen und Funktionen* |
| WS 2017/18 | Lecture *Einführung in die Mathematik I*<br>Lecture *Quantum Dynamics II*<br>Seminar *Quantum Theory for Mathematicians* |
| SS 2017 | Lecture *Linear Algebra II for teachers*<br>Lecture *Quantum Dynamics*<br>Seminar *Classical Mechanics* |

(WS abbreviates winter semester, SS summer semester)

**Technische Universität München, 2010–2016**

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| WS 2016/17 | Lecture *Linear Algebra I for teachers*<br>Lecture *Elements of Harmonic Analysis*<br>Seminar *Markov chain Monte Carlo methods* (with Gantert) |
| SS 2016 | Lecture *Linear Algebra II for teachers*<br>Lecture *Wavelets*<br>Seminar *Matrix theory* |
| WS 2015/16 | Lecture *Linear Algebra I for teachers*<br>Lecture *Monte Carlo Methods*<br>Seminar *Early Fourier Analysis* |
| SS 2015 | Lecture *Numerical Programming II*<br>Supplements for *Introduction to Mathematics for Teachers II*<br>Workshop *One Mathematician, one Proof* |
| WS 2014/15 | Lecture *Numerical Programming I*<br>Supplements for *Introduction to Mathematics for Teachers I* |
| WS 2013/14 | Lecture *Linear Algebra I for teachers*<br>Seminar *Simple Monte Carlo algorithms*<br>Seminar *Geometric Numerical Integration* |
| SS 2013 | Lecture *Linear Algebra II for teachers*<br>Seminar *Mechanics: classical and beyond* |
| WS 2012/13 | Lecture *Linear Algebra I for teachers*<br>Seminar *Wavelet Analysis* |
| SS 2012 | Lecture *Numerical Programming II*<br>Seminar *Breaking the Worst Case* (with Bornemann)<br>Proseminar *Fourier Series* (with Deiser) |
| WS 2011/12 | Lecture *Numerical Programming I*<br>Lecture *Case Studies in Numerics (Quantum Dynamics)*<br>Seminar *Approximation Theory and Practice* |
| SS 2011 | Lecture *Numerik*<br>Proseminar *Benford's Law* |
| WS 2010/11 | Lecture *Numerical Programming I*<br>Proseminar *Eigenvalues in finite dimensions*<br>Seminar *Electronic wave functions* (with Bornemann) |
| SS 2010 | Lecture *Monte Carlo Methods* |

**Freie Universität Berlin, 2005–2009**

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|---|---|
| WS 2009/10 | Lecture *Linear Algebra II for teachers*<br>Seminar *Mathematics for quantum mechanics* |
| SS 2009 | Lecture *Functional Analysis II*<br>Seminar *Introduction to stochastic differential equations* |
| WS 2008/09 | Lecture *Functional Analysis I*<br>Seminar *Stochastic methods of applied mathematics* |
| SS 2008 | Lecture *Stochastics II*<br>Seminar *Quantum dynamics in semiclassical approximations* |
| WS 2006/07 | Lecture *Mathematical introduction to quantum dynamics* |
| WS 2005/06 | Seminar *Visual quantum mechnics* (with Hege & Jahnke) |