

<b>Course Name</b>	Fractals
<b>Contents and Objectives</b>	<p><u>Content:</u></p> <ul style="list-style-type: none"> <li>• Hausdorff measure</li> <li>• Topological dimension</li> <li>• Hausdorff, box counting, Minkowski, and packing dimension</li> <li>• Iterated function systems, attractors, and self-similarity</li> <li>• Dimension of random sets</li> </ul> <p>Objectives: Understanding of different notions of dimension and their mutual relationships, dimension calculation techniques, visualization of fractals</p>
<b>Teaching</b>	<p>This course consists of lectures and exercise classes.</p> <ul style="list-style-type: none"> <li>• Lecture: Fractals (4h/week)</li> <li>• Exercise class: Fractals (2h/week)</li> </ul> <p>This class can be taught remotely.</p>
<b>Prerequisites</b>	Recommended: measure theory and Stochastics
<b>Examination</b>	Oral exam (30 minutes)
<b>Credits</b>	8 ECTS points
<b>Frequency</b>	This course is given at least every second year.
<b>Workload</b>	The estimated total working time for this course is 240 hours.
<b>Duration</b>	This course is given during one semester.