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## **REGRESSION METHODS**

COURSE CONTENT	Course participants will be able to:
	<ul> <li>Understand linear regression and its extensions</li> <li>Know the limitations of these procedures</li> <li>Use resampling models and evaluate regression models</li> <li>Apply these methods in R</li> </ul>
	The course will cover following topics:
	<ul> <li>Linear models and generalized linear models</li> <li>Resampling methods (Bootstrapping, jackknife, cross-validation) including selected model evaluation measures</li> <li>Mixed models for dependent data</li> <li>Techniques of survival analysis</li> <li>Implementation in R</li> </ul>
SCHEDULE*	• Thursday 09:00 - 17:00, Friday 09:00 - 17:00, Saturday 09:00 - 12:30
PRE-REQUISITE	<ul> <li>The participants must have basis knowledge in:</li> <li>statistics, linear algebra, and probability theory</li> <li>R (data manipulation base R /tidyverse)</li> </ul>
BASIS READING	<ul> <li>L. Fahrmeier, T. Kneib, and S. Lang. Regression: Model-le, Methoden und Anwendungen. 2. Auflage Springer, 2009.</li> <li>P. McCullagh and J. Nelder. Generalized Linear Models, Second Edition. Chapman &amp; Hall/CRC Monographs on Statistics &amp; Applied Probability. Taylor &amp; Francis, 1989.</li> </ul>
REGISTRATION	<ul> <li>Deadline for registration is 3 weeks before.</li> <li>The fee for the course is €645; discounted rate for affiliated with a university € 600.</li> <li>The courses may take place in parts or as a whole online (virtual conferences) if in-classroom teaching is not possible.</li> </ul>

\*subject to change

