



**IMPRS on Cognitive NeuroImaging
Module 3: Advanced Courses
Deep Learning**

15 April – 08 July 2025

Date	Time	Topic (subject to change)	Lecturer
15 April	11:15 – 12:45	Introduction	Dr Nico Scherf
22 April	11:15 – 12:45	Neural Networks	Dr Nico Scherf
29 April	11:15 – 12:45	Fitting Neural Networks I	Dr Nico Scherf
06 May	11:15 – 12:45	Fitting Neural Networks II	Dr Nico Scherf
13 May	11:15 – 12:45	Convolutional Neural Nets	Dr Nico Scherf
20 May	11:15 – 12:45	Transformers	Dr Nico Scherf
27 May	11:15 – 12:45	Graph Neural Nets	Dr Nico Scherf
03 June	11:15 – 12:45	GANs	Dr Nico Scherf
10 June	11:15 – 12:45	Normalising Flows	Dr Nico Scherf
17 June	11:15 – 12:45	VAEs	Dr Nico Scherf
24 June	11:15 – 12:45	Diffusion Models	Dr Nico Scherf
01 July	11:15 – 12:45	Reinforcement Learning	Dr Nico Scherf
08 July	11:15 – 12:45	Why Deep Learning works / Ethics	Dr Nico Scherf

Suggested literature: <https://udlbook.github.io/udlbook/>

Venue

Lecture Theatre Gustav Theodor Fechner (C101), Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig

Organiser

International Max Planck Research School on Cognitive NeuroImaging (IMPRS CoNI)

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Credit Points

Participants have the possibility to receive 2 ECTS CPs. Conditions: 80% attendance and submission and positive evaluation of written assignment.

