

Deep Reinforcement Learning for Power Grid Operations

Eric MSP Veith eric.veith@offis.de

Methods from the domain of artificial intelligence have established a firm foothold in the power grid. One of the newer and promising methodologies is that of deep reinforcement learning. This tutorial gives a brief introduction to the basics and details the Cross Entropy Method as well as Deep Q Learning. A short demo applies deep reinforcement learning to tap changer control. While the tutorial certainly won't bring AlphaZero to the power grid, it gives a solid basis for more exploration.