# Reinforcement Learning

#### Value Function

discrete action-space

Discrete state-space (model based)

Dynamic Programming (model based)

Bellman Equation

continuous state-space (model free)

#### DQN

Double Q-Learning delayed G

Duelling network

prioritized replay

adding

multi-step Q-learning

Discrete state-space (model free)

Temporal Difference Learning

SARSA TD(lambda)

Expected SARSA TD(n)

Watkins Q-Learning

Q(sigma)

Monte-Carlo estimates

### **Actor Critic**

A2C, A3C

DDPG - Family

deterministic policy

Dueling DDPG Prioritized DDPG

TD3

SAC (stochastic policy with sigma as output)

## **Policy Gradient**

continuous action-space

REINFORCE (Vanilla Policy Gradient) TRPO (some degree off-policy)

PPO (some degree off-policy) (simplification of TRPO)

on-policy

Importance Sampling off-policy

Experience Replay