

Program instruction

1. Add path
2. Open and run `testActorCritic.m` script
3. During the script runtime, a plot of value and critic function will be viewed and updated in every trial. At the end of the code, a fast-forwarded animation will be shown.
4. Most of the parameters can be changed in `loadParams.m`

The description of the functions/scripts:

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| 1. <code>testActorCritic.m</code> | : [script] run an actor critic controller for 1-DoF inverted pendulum |
| 2. <code>loadParams.m</code> | : [script] declare parameters |
| 3. <code>critic.m</code> | : [function] calculate the value function of a certain state |
| 4. <code>actor.m</code> | : [function] calculate the action at a certain state |
| 5. <code>rbf.m</code> | : [function] evaluates the radial basis functions of a certain state |
| 6. <code>plotrbf.m</code> | : [function] plot the rbf with defined parameters |
| 7. <code>calcCost.m</code> | : [function] calculate the immediate reward for a certain state |
| 8. <code>actSaturate.m</code> | : [function] calculate the saturated value of control input |