# **Torque Converter Simulation**

**Model data:**

* torque converter characteristics  
  ,
* piecewise straight lines, strictly monotonic decreasing

**Simulation step:**

* Simulation interval from timestamp to
* *Given:*
  + State at the end of the previous simulation step :   
     , ,
  + Requested torque and angular velocity at the TC output at the end of the current simulation interval:  
    ,

## **Computation:**

Incoming request , + , ⇒ compute operating point for TC (see detailed description below), result: ,

Send request , to engine.

## **Computation of TC operating point:**

, , ,

Solve for for every piecewise straight line in the torque converter characteristics, take only solutions with