

# Transformation of the equations-block from NESTML to LEMS

Case shapes

```
equations:  
  shape g_in = (e/tau_syn_in) * t ...  
end
```



```
<DerivedVariable name="I_time" dimension="none" value="(exp(1)/tau_syn_in) * t ..."/>  
Caution: e (eulers number) have to be converted to exp(1) in LEMS, t  
as the global time variable is also provided in LEMS
```

Case dif. equations

```
equations:  
  V_m' = ( -g_L * ( ( V_m - E_L ) - ....  
end
```



```
<TimeDerivative variable="V_m" value="( -g_L * ( ( V_m - E_L ) - ...."/>  
Caution: here we have to delete the tilde
```

Case normal  
equations

```
equations:  
  I_spike pA = delta_T*exp(exp_arg)  
end
```



```
<DerivedVariable name="I_spike" dimension="DimensionOf_pA" value="delta_T*exp(exp_arg)"/>
```