Avalanche photodetectors and thermal noise case.

- Optimum thresholds for both receivers.
- Ideal sharp characteristics for the hardlimiters.
- System parameters:
  1) $\lambda = 1.3 \mu m$  
  2) $T_c = 0.03 \text{ns}$  
  3) $\eta = 0.8$  
  4) $I_d = 1 \text{nA}$  
  5) $G = 100$  
  6) $k_{eff} = 0.02$

- The bit error rate of the correlation receiver with double hardlimiters is slightly better than that of the chip-level receiver for low thermal noise.
- The bit error rate of the chip-level receiver is slightly better than that of the correlation receiver with double hardlimiters for high thermal noise.
- They coincide with each other by increasing the average optical power and reach an error probability floor.