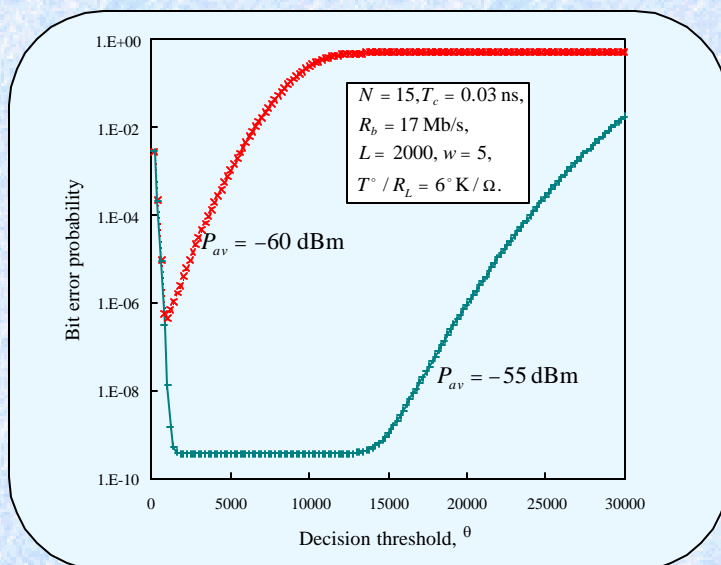


**Complexity and Performance Comparisons
Between Optical OOK-CDMA Chip-Level Receivers
and Double-Optical-Hardlimiters Correlation Receivers**

Threshold dependence in OOK-CDMA chip-level receivers.



- When the optical power is large enough (so that the error probability floor is reached) the optimum threshold is not unique and covers a practically wide range.
- When the optical power is not large enough, then there is only one unique optimum threshold.

3) Concluding Remarks.

- Chip-level receivers are much simpler and more practical than traditional correlation receivers with double optical-hardlimiters.
- Under ideal conditions for the optical hardlimiters, the performances of both types of systems are *almost* similar to each other.
- The error probability floors of chip-level receivers can be reached with very low average power and the corresponding decision thresholds are rather robust.