Assessment of Biometric Robustness Against Spoof Attacks

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- Fusion takes into consideration the security of each unimodal system.
- How to measure the intrinsic robustness of a biometric system?
- So far this assessment has been subjective (e.g. low, medium, high)
- Or measured via performance evaluation (FAR,FRR) with spoofed samples.
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• Proposed method:
  – Based on information theory.
  – Loss of discriminative information (LDI):
    \[ LDI = KL(p_i \| p_g) - [KL(p_s \| p_g) - KL(p_s \| p_i)] \]
  – Takes into consideration the spoofing time (TTS)
  – Qualitative assessment: