when the estimated packet loss rate does not match the actual one, we use 10% packet loss rate in the RD optimization process, whereas, the actual packet loss rate is varied from 0 to 20%. Fig. 5 shows that the penalty because of the mismatch of the packet loss is not significant, especially when the packet loss rate is in the range from 5% to 15%, the gap is less than 0.25dB. Comparing with the ROPE approach, the proposed JRVIR approach can provide better video quality when the estimated packet loss rate is not matched with the real situation.

In Table I, simulation results for video sequences with varies degree of movement and bitrate are