

Figure 3: The comparison of item representation learning process of various solutions. (a) SASRec_F: SASRec_F fuses side information into item representation and uses the fused item representation to calculate key, query and value. (b) NOVA-SR: NOVA-SR uses the fused item representation for the calculation of key and query, and keeps value non-invasive. (c) DIF-SR: Instead of early fusion to get fused item representation, the proposed DIF-SR decouples the attention calculation process of various side information to generate fused attention matrices for higher representation power, avoidance of mixed correlation, and flexible training gradient.

