(a) A→B→A Direction

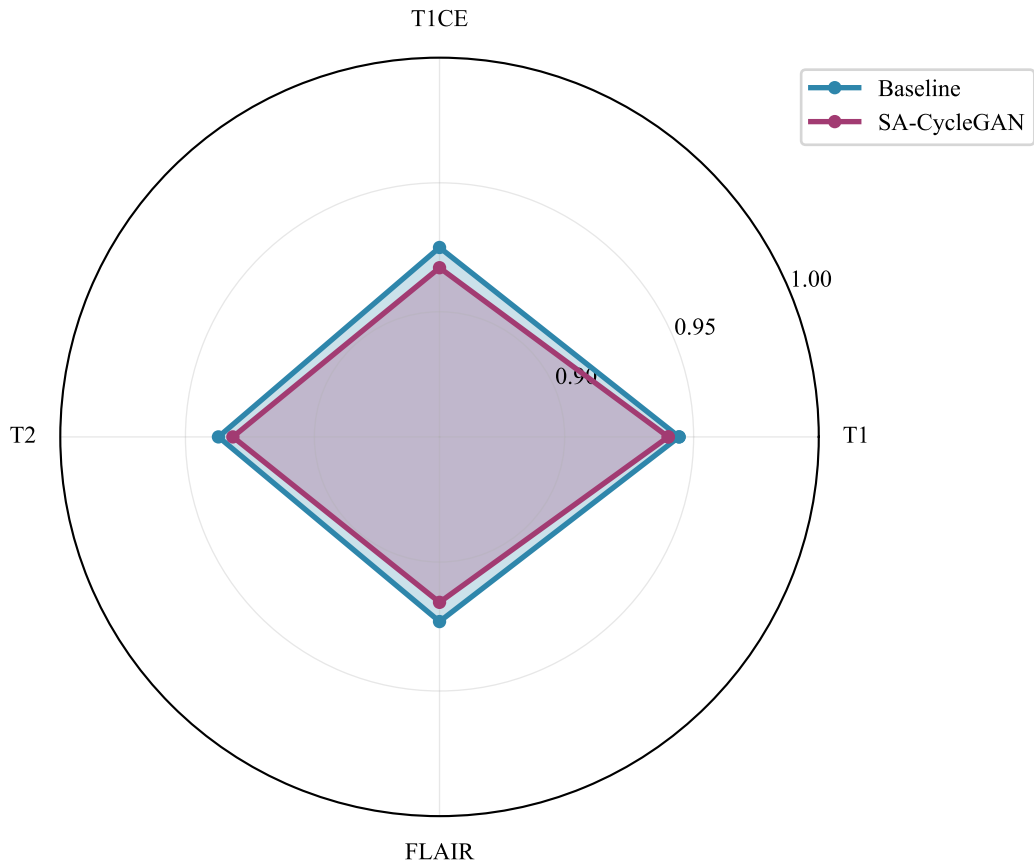(b) B→A→B Direction