Overlapping Rectangles

$(L_1[0], L_1[1])$

$(L_2[0], L_2[1])$

R_{11}

R_{21} (top-left)

top-left

R_{12}

R_{22}

$(R_1[0], R_1[1])$

$(R_2[0], R_2[1])$

(bottom-right)

(Bottom right)

(bottom-right)