

Initialize: $q^a = q^{\min} = -b, q^b = q^{\max} = b, p = \text{const}, r_a(s), r_b(s), j = \text{NI}, I(p) = 0, \Pi^a = (\text{NI}), \Pi^b = (\text{NI})$

Trace back $r_a(s)$ and $r_b(s)$ and find the lines k and l from which they originate and their corresponding coordinates on line k and l . $\Pi^a = (k, \Pi^a), \Pi^b = (l, \Pi^b)$

Are they emitted from the same line ($k = l$)?

Yes

No

Are they emitted from the source ($k = 1$)?

No

Yes

Is $j = \text{NI}$?

Yes

Stop

No

$j = k$

$I(p) = I(p) + |q^a(\Pi^a, p) - q^b(\Pi^a, p)|$

Apply bisection to (q^a, p) and (q^b, p)

Find (q^c, p) and (q^d, p) such that $|q^c - q^d| < \text{tol}$ and $\Pi^c = \Pi^a$

$q^b = q^c, r_b(s) = r_c(s)$

$q^a = q^d, r_a(s) = r_d(s)$

