S0272502 SuK Fiber Collimator Characterization; X Radii (p-pol) Near Field
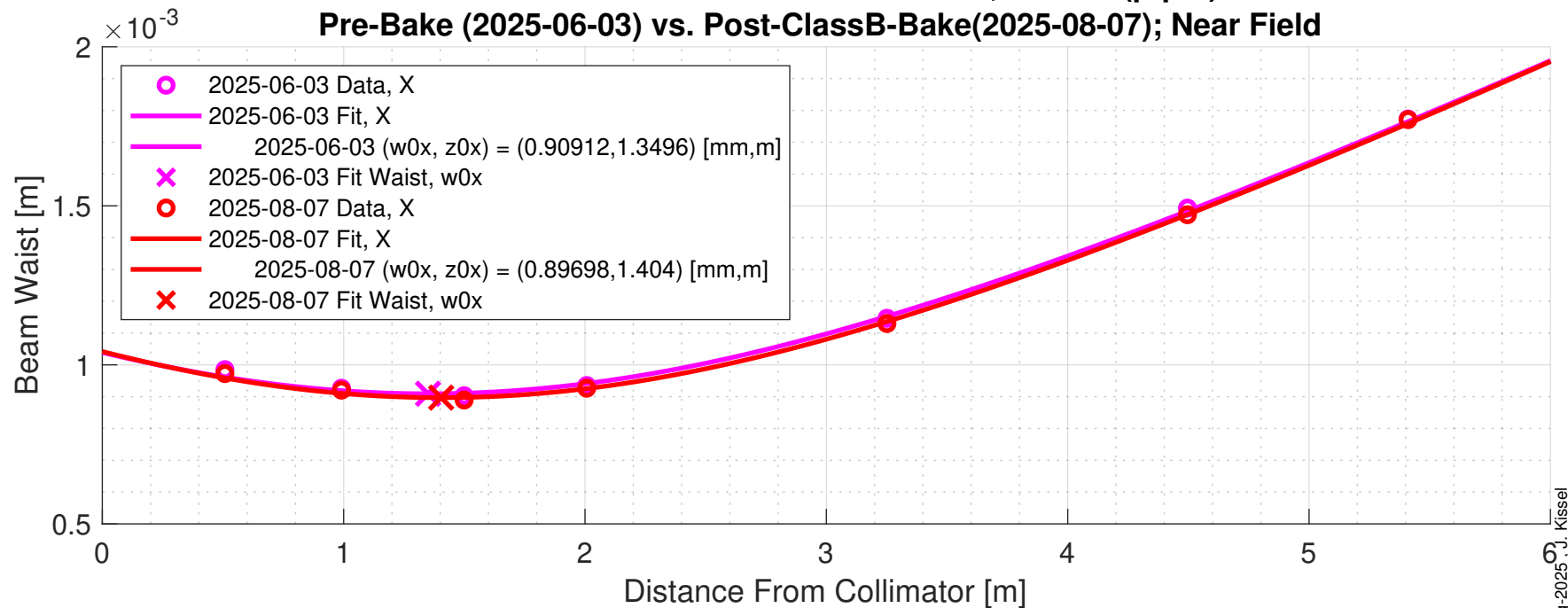**Pre-Bake (2025-06-03) vs. Post-ClassB-Bake(2025-08-07); Near Field**

Legend:
- ○ 2025-06-03 Data, X
- — 2025-06-03 Fit, X
- — 2025-06-03 (w0x, z0x) = (0.90912,1.3496) [mm,m]
- ✕ 2025-06-03 Fit Waist, w0x
- ○ 2025-08-07 Data, X
- — 2025-08-07 Fit, X
- — 2025-08-07 (w0x, z0x) = (0.89698,1.404) [mm,m]
- ✕ 2025-08-07 Fit Waist, w0x

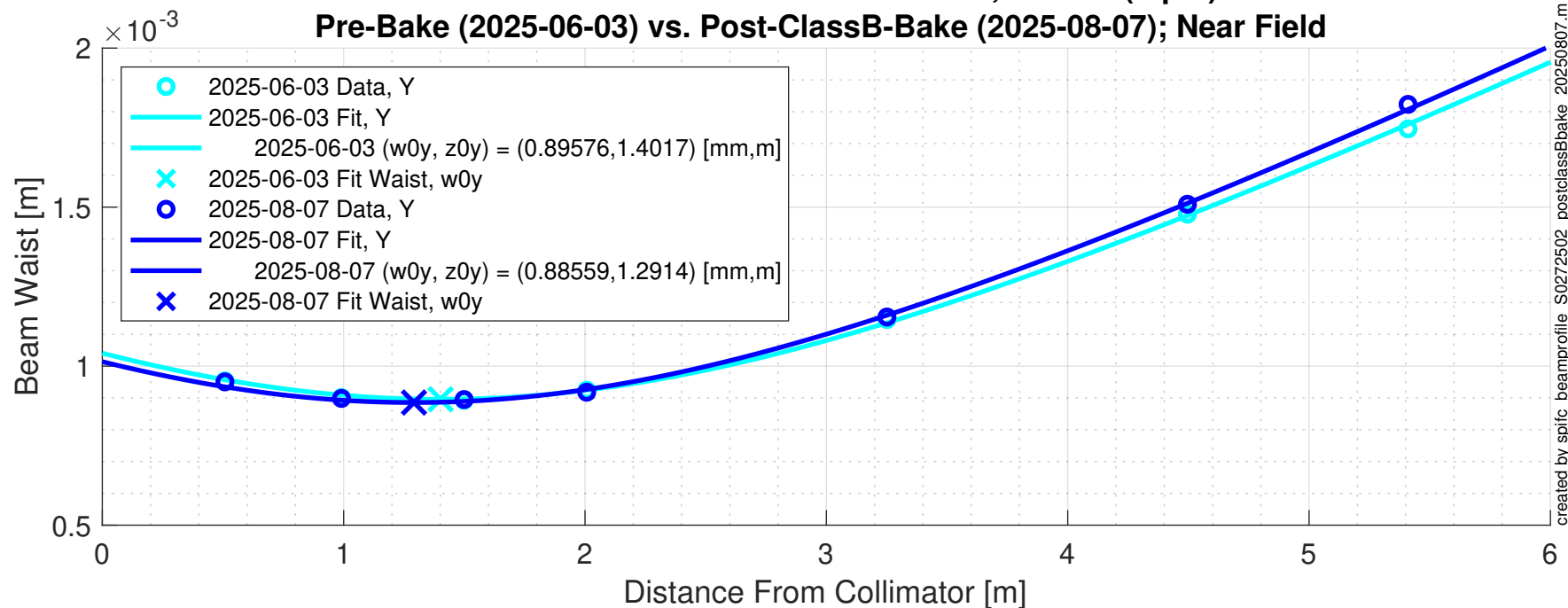Y axis: Beam Waist [m]
X axis: Distance From Collimator [m]

S0272502 SuK Fiber Collimator Characterization; Y Radii (s-pol) Near Field
Pre-Bake (2025-06-03) vs. Post-ClassB-Bake (2025-08-07); Near Field

Legend:
- ○ 2025-06-03 Data, Y
- — 2025-06-03 Fit, Y
- — 2025-06-03 (w0y, z0y) = (0.89576,1.4017) [mm,m]
- ✕ 2025-06-03 Fit Waist, w0y
- ○ 2025-08-07 Data, Y
- — 2025-08-07 Fit, Y
- — 2025-08-07 (w0y, z0y) = (0.88559,1.2914) [mm,m]
- ✕ 2025-08-07 Fit Waist, w0y

Y axis: Beam Waist [m]
X axis: Distance From Collimator [m]

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S0272502 SuK Fiber Collimator Characterization
2025-06-03 (Pre-Bake); Near Field

Legend:
- ○ Measured Data, X
- — Fit, X
- — (w0x, z0x) = (0.90912,1.3496) [mm,m]
- ✕ Fit Waist, w0x
- ☐ waist at zRx (+ z0x); w(zR+z0x) = sqrt(2)*w0x
- – – Divergence, waist at end = (end - z0x)*atan(λ / [π * w0x])
- ○ Measured Data, Y
- — Fit, Y
- — (w0y, z0y) = (0.89576,1.4017) [mm,m]
- ✕ Fit Waist, w0y
- ☐ waist at zRy (+ z0y); w(zR+z0y) = sqrt(2)*w0y
- – – Divergence, waist at end = (end - z0y)*atan(λ / [π * w0y])

X-axis: Distance From Collimator [m]
Y-axis: Beam Waist [m]

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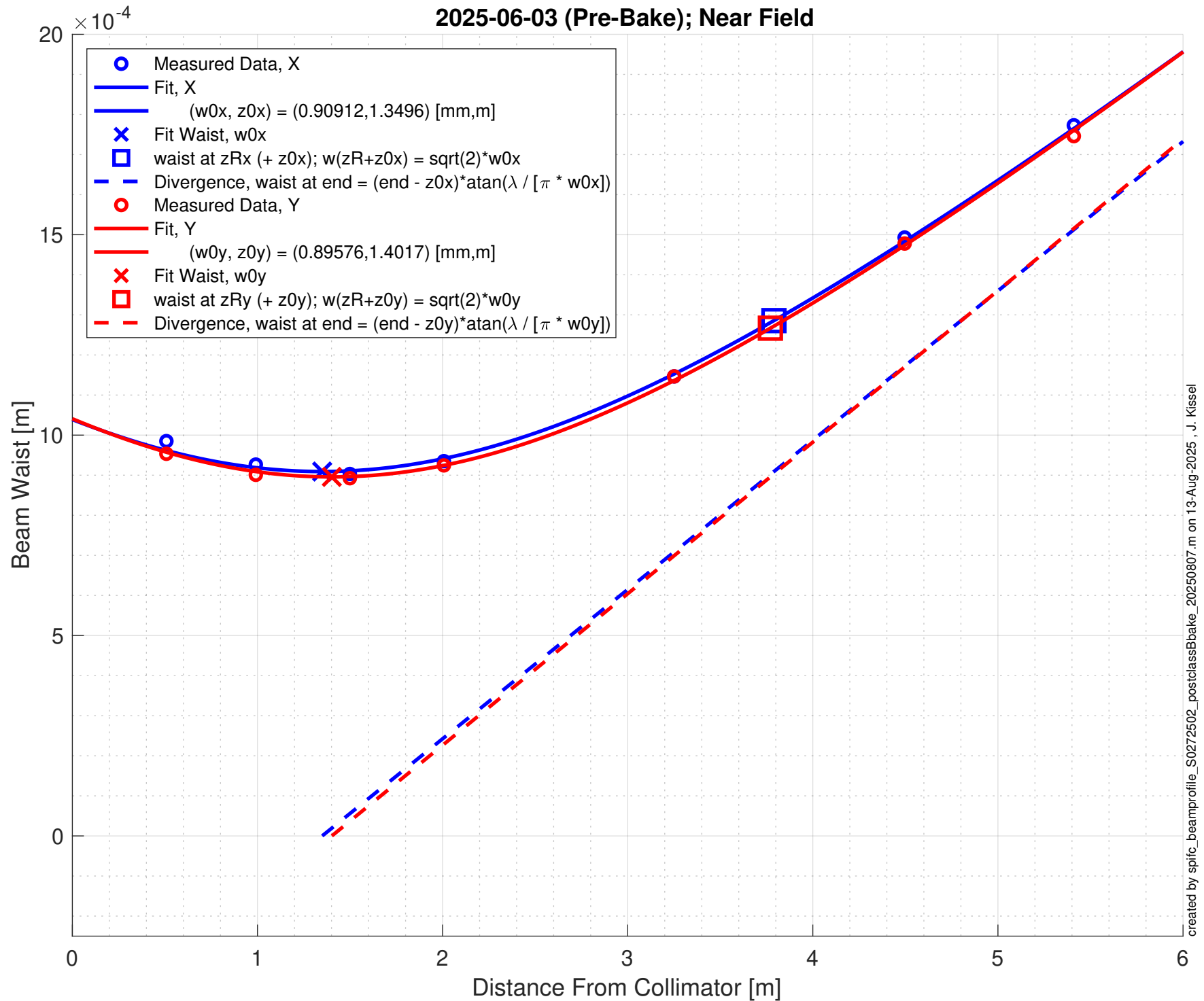
S0272502 SuK Fiber Collimator Characterization
2025-06-03 (Pre-Bake); Far Field

S0272502 SuK Fiber Collimator Characterization
2025-08-07 (Post-ClassB-Bake); Near Field

Legend:
- Measured Data, X
- Fit, X
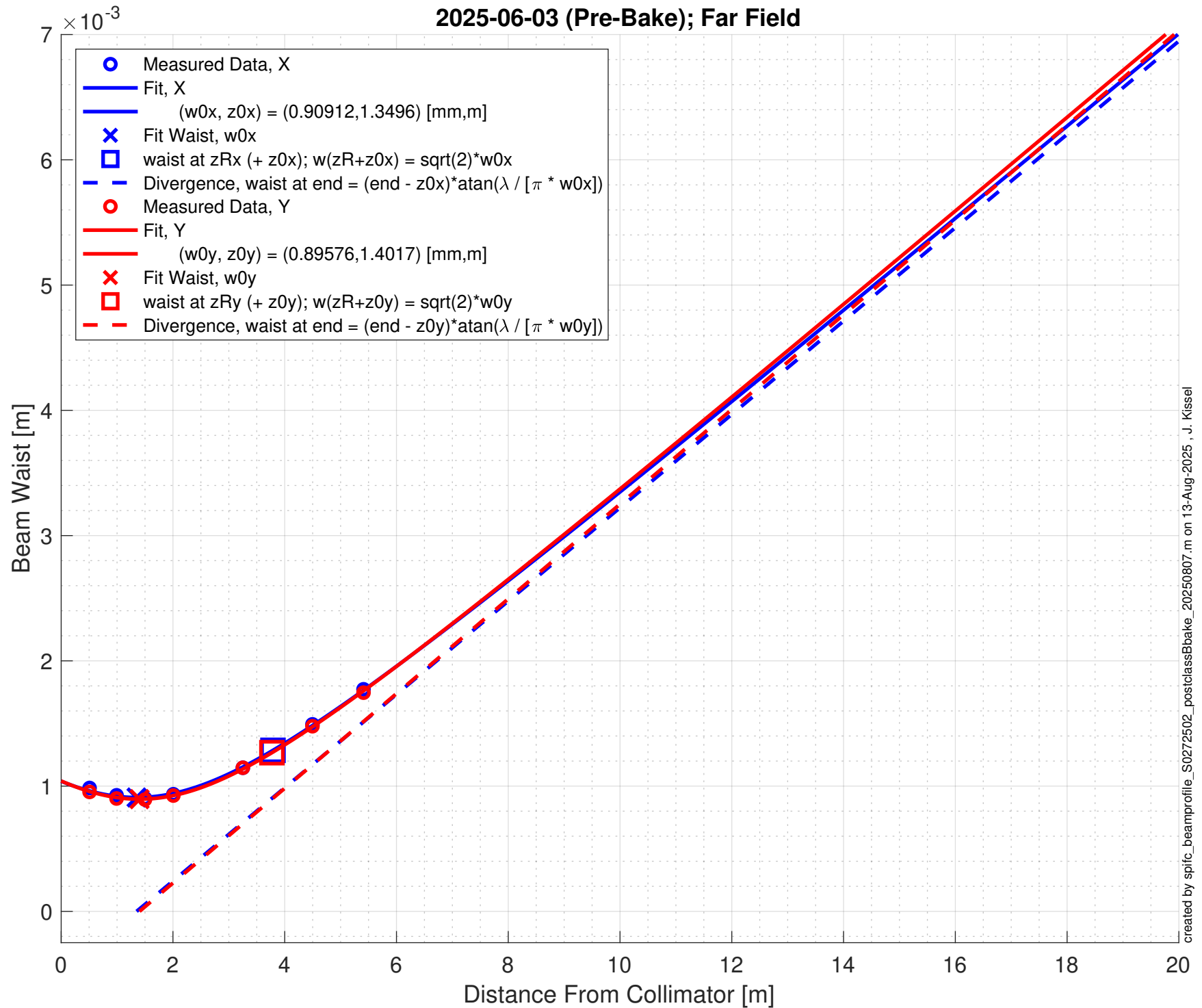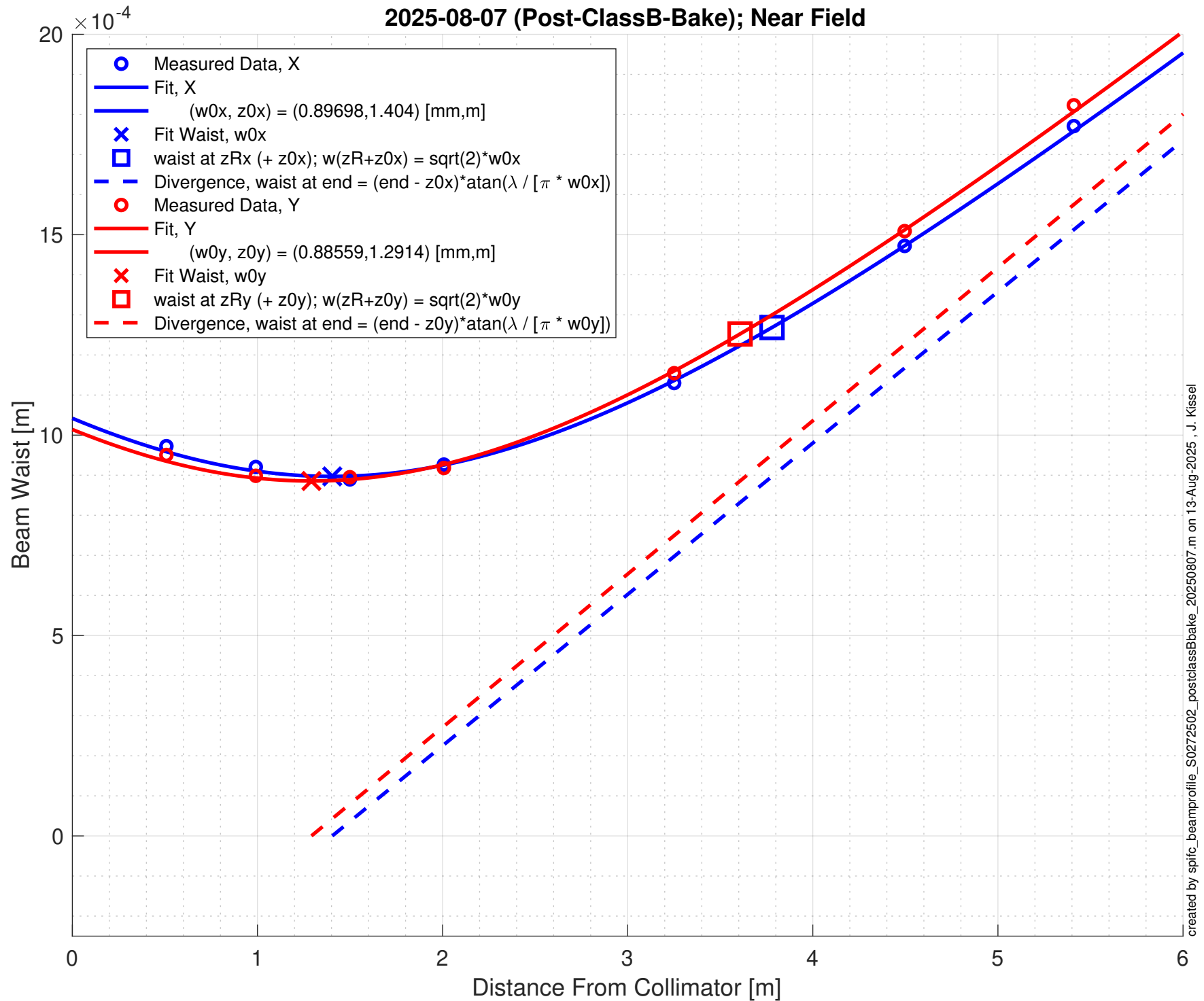- (w0x, z0x) = (0.89698,1.404) [mm,m]
- Fit Waist, w0x
- waist at zRx (+ z0x); w(zR+z0x) = sqrt(2)*w0x
- Divergence, waist at end = (end - z0x)*atan(λ / [π * w0x])
- Measured Data, Y
- Fit, Y
- (w0y, z0y) = (0.88559,1.2914) [mm,m]
- Fit Waist, w0y
- waist at zRy (+ z0y); w(zR+z0y) = sqrt(2)*w0y
- Divergence, waist at end = (end - z0y)*atan(λ / [π * w0y])

Y-axis: Beam Waist [m]
X-axis: Distance From Collimator [m]

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S0272502 SuK Fiber Collimator Characterization
2025-08-07 (Post-ClassB-Bake); Far Field

Legend:
- Measured Data, X (blue circle)
- Fit, X (blue line)
- $(w_{0x}, z_{0x}) = (0.89698, 1.404)$ [mm,m]
- Fit Waist, w_{0x} (blue x)
- waist at z_{Rx} (+ z_{0x}); $w(z_R + z_{0x}) = \sqrt{2} \cdot w_{0x}$ (blue square)
- Divergence, waist at end = (end - z_{0x})*atan(λ / [$\pi \cdot w_{0x}$]) (blue dashed)
- Measured Data, Y (red circle)
- Fit, Y (red line)
- $(w_{0y}, z_{0y}) = (0.88559, 1.2914)$ [mm,m]
- Fit Waist, w_{0y} (red x)
- waist at z_{Ry} (+ z_{0y}); $w(z_R + z_{0y}) = \sqrt{2} \cdot w_{0y}$ (red square)
- Divergence, waist at end = (end - z_{0y})*atan(λ / [$\pi \cdot w_{0y}$]) (red dashed)

X-axis: Distance From Collimator [m]
Y-axis: Beam Waist [m]

created by spifc_beamprofile_S0272502_postclassBbake_20250807.m on 13-Aug-2025 , J. Kissel