

Supplementary Material to the paper: Vanquishing the computational
cost of passive gamma emission tomography simulations: a
physics-aware reduced order modeling approach

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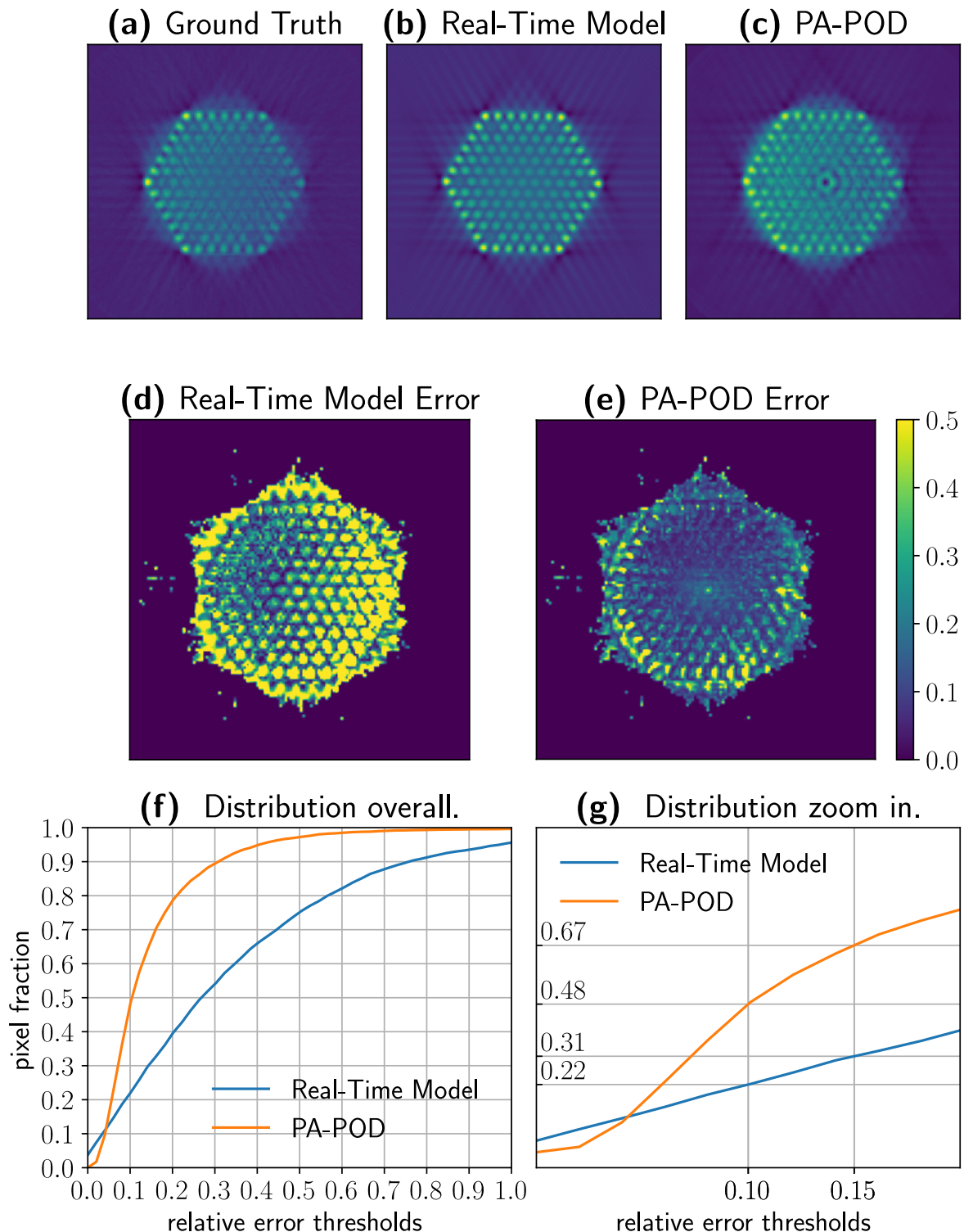
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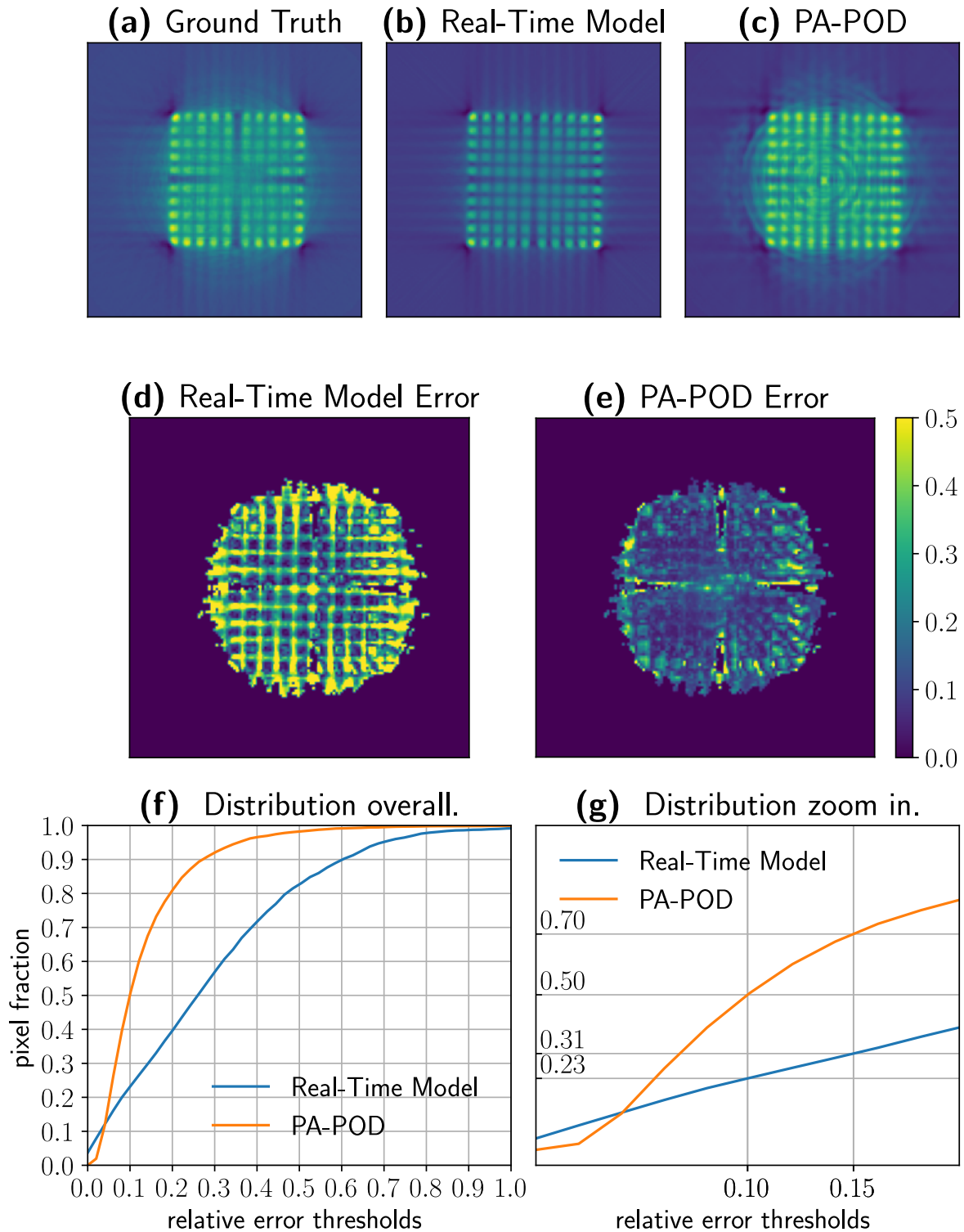
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VVER assembly, error maps and cumulative distribution,
for, $N_s = 60$, $k = 60$.



Supplementary Figure 1: (a) Ground truth; (b) Real-Time Model; (c) PA-POD; (d) Relative error for the Real-Time Model solution; (e) Relative error map for the PA-POD approximated sinogram. In the PA-POD case we randomly sample sixty views of the spent fuel, we repeat the sample one hundred times, and for each pixel, we collect the median of the sampled data. (f): Overall error distribution expressed in pixel fraction; (g): Zoom and highlight on the 10% and 15% error thresholds.

BWR assembly, error maps and cumulative distribution,
for, $N_s = 60$, $k = 60$.



Supplementary Figure 2: (a) Ground truth; (b) Real-Time Model; (c) PA-POD; (d) Relative error for the Real-Time Model solution; (e) Relative error map for the PA-POD approximated sinogram. In the PA-POD case we randomly sample sixty views of the spent fuel, we repeat the sample one hundred times, and for each pixel, we collect the median of the sampled data. (d): Overall error distribution expressed in pixel fraction; (e): Zoom and highlight on the 10% and 15% error thresholds.