



DESIGN, AUTOMATION
AND TEST IN EUROPE

THE EUROPEAN EVENT FOR
ELECTRONIC SYSTEM DESIGN & TEST

20 – 22 APRIL 2026
VERONA, ITALY

PALAZZO DELLA GRAN GUARDIA



DiffResist: Physics-Constrained Diffusion for Photoresist Modeling

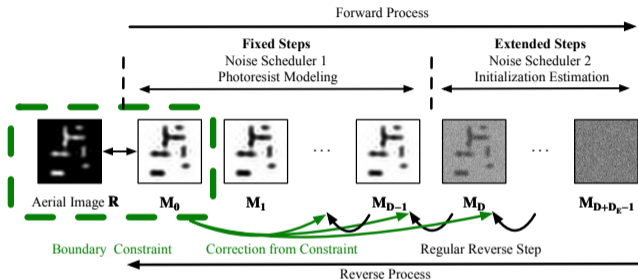
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Method	EPE (nm)	Time (s/tile)
3D-DDPM	10.17	6.45
SVG-RNN	4.62	0.53
DiffResist	2.56	0.44

- Reformulate 3D resist prediction as **depth-wise 2D diffusion** (not 3D diffusion)
- Each reverse step = one physical layer; **boundary condition** injected at resist–air interface
- Lightweight **super-resolution** recovers full resolution

EPE: 2.56 nm
44% lower than best baseline

> 10× Faster
than 3D diffusion baselines

Thank You