Highlights

PRISM-Net: Patient-specific reference-guided inter-breast symmetry matching for three-class breast DCE-MRI classification

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- PRISM-Net proposes a radiology-guided bilateral framework for breast DCE-MRI classification.
- Adaptive patch matching establishes patient-specific contralateral references without anatomical registration.
- Models bilateral deviations to distinguish informative asymmetry from background variation.
- Improves no-lesion, benign,malignant three class discrimination and ordinal agreement across cohorts.
- Demonstrates robustness under complex BPE and FGT patterns.