表S1. MVTec AD [5]における異常検出性能（AUROC）。PaDiM*は、画像レベル異常検出タスク用に特化して選択されたバックボーンを用いた[14]の結果を指し、当研究では再現できなかった。

↓Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
GeoTrans [20]	67.2	74.4	78.3	67.0	43.7	61.9	35.9	84.1	81.3	63.0	50.0	41.7	97.2	86.9	61.1	82.0
GANomaly [2]	76.2	89.2	75.7	73.2	69.9	70.8	78.5	84.2	70.0	74.3	74.6	79.4	65.3	79.2	83.4	74.5
DSEBM [58]	70.9	81.8	68.5	59.4	41.3	71.7	76.2	41.6	67.9	80.6	99.9	69.0	78.1	74.1	95.2	58.4
OCSVM [3]	71.9	99.0	80.3	54.4	62.7	41.0	91.1	88.0	61.1	72.9	74.7	87.6	61.9	56.7	95.3	51.7
ITAE [25]	83.9	94.1	83.2	68.1	70.6	88.3	85.5	86.2	66.7	78.6	**100**	73.5	**100**	84.3	92.3	87.6
SPADE [10]	85.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAVGA-R_u [52]	90	96	92	93	88	84	97	89	82	86	81	97	89	99	79	96
PatchSVDD [56]	92.1	98.6	90.3	76.7	92.9	94.6	92.0	90.9	94.0	86.1	81.3	97.8	**100**	91.5	96.5	97.9
DifferNet [42]	94.9	99.0	95.9	86.9	92.9	84.0	99.3	97.1	96.1	88.8	96.3	99.4	98.6	91.1	**99.8**	95.1
PaDiM [14]	95.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MahalanobisAD [40]	95.8	**100**	95.0	95.1	**100**	89.7	99.1	**100**	94.7	88.7	85.2	**99.8**	96.9	95.5	99.6	97.9
PaDiM* [14]	97.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PatchCore−25	**99.1**	**100**	**99.5**	**98.1**	**98.7**	98.2	**100**	**100**	**100**	96.6	98.1	98.7	**100**	**100**	99.2	99.4
PatchCore−10	99.0	100	99.4	97.8	98.7	97.9	**100**	**100**	**100**	96.0	97.0	98.9	99.7	**100**	99.0	**99.5**
PatchCore−1	99.0	100	99.3	98.0	98.0	**98.6**	**100**	**100**	99.7	**97.0**	96.4	99.4	**100**	99.9	99.2	99.2

表S2. MVTec [5]における異常セグメンテーション性能を、ピクセル単位のAUROCで測定した結果。

↓Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
vis. expl. VAE [31]	86	87	90	74	78	73	98	95	94	83	97	80	94	93	77	78
AE_{SSIM} [5]	87	93	82	94	87	94	97	78	89	91	96	59	92	90	73	88
γ-VAE + grad. [15]	88.8	93.1	88.0	91.7	72.7	97.9	98.8	89.7	91.4	93.5	97.2	58.1	98.3	93.1	80.9	87.1
CAVGA-R_u [52]	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PatchSVDD [56]	95.7	98.1	96.8	95.8	92.6	96.2	97.5	97.4	98.0	95.1	95.7	91.4	98.1	97.0	90.8	95.1
SPADE [10]	96.0	98.4	97.2	**99.0**	97.5	93.7	**99.1**	97.6	98.1	96.5	98.9	87.4	97.9	94.1	88.5	96.5
PaDiM [14]	97.5	98.3	96.7	98.5	**99.1**	97.3	98.2	99.2	97.2	95.7	98.5	94.1	**98.8**	**98.5**	94.9	98.5
PatchCore−25	**98.1**	**98.6**	98.4	98.8	99.0	**98.7**	98.7	**99.3**	**98.4**	97.4	**99.4**	95.6	98.7	96.3	95.0	98.8
PatchCore−10	**98.1**	**98.6**	**98.5**	98.9	**99.1**	**98.7**	98.7	**99.3**	**98.4**	**97.6**	**99.4**	95.9	98.7	96.4	**95.1**	**98.9**
PatchCore−1	98.0	98.5	98.2	98.8	98.9	98.6	98.6	**99.3**	**98.4**	97.1	99.2	**96.1**	98.5	94.9	**95.1**	98.8

表S3. MVTec [5]における異常セグメンテーション性能（PRO [%] [5, 10]で測定）。

↓Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
AE_{SSIM} [5]	69.4	83.4	47.8	86.0	64.7	84.9	91.6	56.1	60.3	83.0	88.7	17.5	78.4	72.5	60.5	66.5
Student [6]	85.7	91.8	86.5	91.6	69.5	81.9	93.7	81.9	89.5	93.5	92.8	**91.2**	86.3	70.1	72.5	93.3
SPADE [10]	91.7	95.5	90.9	93.7	94.7	86.7	**95.4**	97.2	**94.4**	**94.6**	96.0	75.6	**93.5**	**87.4**	87.4	92.6
PaDiM [14]	92.1	94.8	88.8	93.5	96.2	94.6	92.6	97.8	85.6	92.7	94.4	86.0	93.1	84.5	**91.1**	95.9
PatchCore−25	93.4	**96.2**	92.5	**95.5**	**96.6**	96.0	93.8	**98.9**	91.4	93.2	**97.9**	87.3	91.5	83.7	89.4	**97.1**
PatchCore−10	**93.5**	96.1	**92.6**	**95.5**	**96.6**	95.9	93.9	**98.9**	91.3	94.1	**97.9**	87.4	91.4	83.5	89.6	**97.1**
PatchCore−1	93.1	95.9	91.6	**95.5**	96.5	**96.1**	93.8	**98.9**	91.2	92.9	97.1	88.3	90.2	81.2	89.5	97.0

表S4. MVTec AD [5]における異常検出と局所化性能（AUROC）を、PatchCore-1を使用し、より大きな画像（280 × 280）とWideResNet 101バックボーンで評価した結果。

↓ メトリクス \データセット → 平均	ボトル	ケーブル	カプセル	カーペット	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
PatchCore−1, Hierarchies (2, 3), Imagesize 280															
AUROC 99.4	100	99.6	98.2	98.4	99.8	100	100	100	97.2	98.9	98.9	100	100	99.5	99.9
pwAUROC 98.2	98.6	98.4	99.1	98.7	98.7	98.8	99.3	98.8	97.8	99.3	96.1	98.8	96.4	95.1	98.9
PRO 94.4	96.6	93.8	96.0	97.4	96.8	91.2	99.1	94.8	94.0	97.5	89.5	95.5	84.8	91.7	97.8
PatchCore−1, Hierarchies (1, 2, 3), Imagesize 280															
AUROC 99.2	100	99.7	98.1	98.2	98.3	100	100	100	97.1	99.0	98.9	98.9	99.7	99.9	99.7
pwAUROC 98.4	98.6	98.7	99.1	98.7	98.8	98.8	99.3	99.0	98.6	99.5	96.3	98.9	97.1	95.2	99.0
PRO 95.0	96.6	94.6	96.3	97.5	97.0	91.5	99.1	95.4	96.0	98.1	90.0	95.8	85.9	92.0	98.0

Table S1. Anomaly Detection Performance (AUROC) on MVTec AD [5]. PaDiM* denotes a result from [14] with a backbone specifically selected for the task of image-level anomaly detection, which we could not reproduce.

↓ Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
GeoTrans [20]	67.2	74.4	78.3	67.0	43.7	61.9	35.9	84.1	81.3	63.0	50.0	41.7	97.2	86.9	61.1	82.0
GANomaly [2]	76.2	89.2	75.7	73.2	69.9	70.8	78.5	84.2	70.0	74.3	74.6	79.4	65.3	79.2	83.4	74.5
DSEBM [58]	70.9	81.8	68.5	59.4	41.3	71.7	76.2	41.6	67.9	80.6	99.9	69.0	78.1	74.1	95.2	58.4
OCSVM [3]	71.9	99.0	80.3	54.4	62.7	41.0	91.1	88.0	61.1	72.9	74.7	87.6	61.9	56.7	95.3	51.7
ITAE [25]	83.9	94.1	83.2	68.1	70.6	88.3	85.5	86.2	66.7	78.6	**100**	73.5	**100**	84.3	92.3	87.6
SPADE [10]	85.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CAVGA-R_u [52]	90	96	92	93	88	84	97	89	82	86	81	97	89	99	79	96
PatchSVDD [56]	92.1	98.6	90.3	76.7	92.9	94.6	92.0	90.9	94.0	86.1	81.3	97.8	**100**	91.5	96.5	97.9
DifferNet [42]	94.9	99.0	95.9	86.9	92.9	84.0	99.3	97.1	96.1	88.8	96.3	99.4	98.6	91.1	**99.8**	95.1
PaDiM [14]	95.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MahalanobisAD [40]	95.8	**100**	95.0	95.1	**100**	89.7	99.1	**100**	94.7	88.7	85.2	**99.8**	96.9	95.5	99.6	97.9
PaDiM* [14]	97.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PatchCore−25	**99.1**	**100**	**99.5**	**98.1**	**98.7**	98.2	**100**	**100**	**100**	96.6	98.1	98.7	**100**	**100**	99.2	99.4
PatchCore−10	99.0	100	99.4	97.8	98.7	97.9	**100**	**100**	**100**	96.0	97.0	98.9	99.7	**100**	99.0	**99.5**
PatchCore−1	99.0	100	99.3	98.0	98.0	**98.6**	**100**	**100**	99.7	**97.0**	96.4	99.4	**100**	99.9	99.2	99.2

Table S2. Anomaly Segmentation Performance on MVTec [5], as measured in pixelwise AUROC.

↓ Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
vis. expl. VAE [31]	86	87	90	74	78	73	98	95	94	83	97	80	94	93	77	78
AE_{SSIM} [5]	87	93	82	94	87	94	97	78	89	91	96	59	92	90	73	88
γ-VAE + grad. [15]	88.8	93.1	88.0	91.7	72.7	97.9	98.8	89.7	91.4	93.5	97.2	58.1	98.3	93.1	80.9	87.1
CAVGA-R_u [52]	89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PatchSVDD [56]	95.7	98.1	96.8	95.8	92.6	96.2	97.5	97.4	98.0	95.1	95.7	91.4	98.1	97.0	90.8	95.1
SPADE [10]	96.0	98.4	97.2	**99.0**	97.5	93.7	**99.1**	97.6	98.1	96.5	98.9	87.4	97.9	94.1	88.5	96.5
PaDiM [14]	97.5	98.3	96.7	98.5	**99.1**	97.3	98.2	99.2	97.2	95.7	98.5	94.1	**98.8**	**98.5**	94.9	98.5
PatchCore−25	**98.1**	**98.6**	98.4	98.8	99.0	**98.7**	98.7	**99.3**	**98.4**	97.4	**99.4**	95.6	98.7	96.3	95.0	98.8
PatchCore−10	**98.1**	**98.6**	**98.5**	98.9	**99.1**	**98.7**	98.7	**99.3**	**98.4**	**97.6**	**99.4**	95.9	98.7	96.4	**95.1**	**98.9**
PatchCore−1	98.0	98.5	98.2	98.8	98.9	98.6	98.6	**99.3**	**98.4**	97.1	99.2	**96.1**	98.5	94.9	**95.1**	98.8

Table S3. Anomaly Segmentation Performance on MVTec [5], as measured in PRO [%] [5, 10].

↓ Method \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
AE_{SSIM} [5]	69.4	83.4	47.8	86.0	64.7	84.9	91.6	56.1	60.3	83.0	88.7	17.5	78.4	72.5	60.5	66.5
Student [6]	85.7	91.8	86.5	91.6	69.5	81.9	93.7	81.9	89.5	93.5	92.8	**91.2**	86.3	70.1	72.5	93.3
SPADE [10]	91.7	95.5	90.9	93.7	94.7	86.7	**95.4**	97.2	**94.4**	**94.6**	96.0	75.6	**93.5**	**87.4**	87.4	92.6
PaDiM [14]	92.1	94.8	88.8	93.5	96.2	94.6	92.6	97.8	85.6	92.7	94.4	86.0	93.1	84.5	**91.1**	95.9
PatchCore−25	93.4	**96.2**	92.5	**95.5**	**96.6**	96.0	93.8	**98.9**	91.4	93.2	**97.9**	87.3	91.5	83.7	89.4	**97.1**
PatchCore−10	**93.5**	96.1	**92.6**	**95.5**	**96.6**	95.9	93.9	**98.9**	91.3	94.1	**97.9**	87.4	91.4	83.5	89.6	**97.1**
PatchCore−1	93.1	95.9	91.6	**95.5**	96.5	**96.1**	93.8	**98.9**	91.2	92.9	97.1	88.3	90.2	81.2	89.5	97.0

Table S4. Anomaly Detection and Localization Performance (AUROC) on MVTec AD [5] with PatchCore−1 using larger images (280 × 280) and a WideResNet101 backbone.

↓ Metric \Dataset →	**Avg**	Bottle	Cable	Capsule	Carpet	Grid	Hazeln.	Leather	Metal Nut	Pill	Screw	Tile	Toothb.	Trans.	Wood	Zipper
PatchCore−1, Hierarchies (2, 3), Imagesize 280																
AUROC	99.4	100	99.6	98.2	98.4	99.8	100	100	100	97.2	98.9	98.9	100	100	99.5	99.9
pwAUROC	98.2	98.6	98.4	99.1	98.7	98.7	98.8	99.3	98.8	97.8	99.3	96.1	98.8	96.4	95.1	98.9
PRO	94.4	96.6	93.8	96.0	97.4	96.8	91.2	99.1	94.8	94.0	97.5	89.5	95.5	84.8	91.7	97.8
PatchCore−1, Hierarchies (1, 2, 3), Imagesize 280																
AUROC	99.2	100	99.7	98.1	98.2	98.3	100	100	100	97.1	99.0	98.9	98.9	99.7	99.9	99.7
pwAUROC	98.4	98.6	98.7	99.1	98.7	98.8	98.8	99.3	99.0	98.6	99.5	96.3	98.9	97.1	95.2	99.0
PRO	95.0	96.6	94.6	96.3	97.5	97.0	91.5	99.1	95.4	96.0	98.1	90.0	95.8	85.9	92.0	98.0