

| AUC  | SVM    | RF     | 1DCNN  | 2DCNN  | HybridSN | CTN    | DMC    | GSC-ViT | MSSTT  | HOSD          | EATN          | MambaHSI | MambaGL       |
|------|--------|--------|--------|--------|----------|--------|--------|---------|--------|---------------|---------------|----------|---------------|
| GM1  | 0.8104 | 0.8025 | 0.8398 | 0.8620 | 0.8683   | 0.8350 | 0.8720 | 0.8429  | 0.8616 | 0.8963        | 0.8659        | 0.8548   | <b>0.8977</b> |
| GM2  | 0.8019 | 0.7853 | 0.8242 | 0.8502 | 0.8386   | 0.7689 | 0.8863 | 0.8356  | 0.8436 | 0.8893        | <b>0.9214</b> | 0.8710   | 0.7503        |
| GM3  | 0.8631 | 0.8588 | 0.8605 | 0.8795 | 0.8837   | 0.8118 | 0.8780 | 0.8555  | 0.8728 | <b>0.9104</b> | 0.8764        | 0.8195   | 0.8083        |
| GM4  | 0.8928 | 0.8821 | 0.8996 | 0.9076 | 0.8988   | 0.8552 | 0.8859 | 0.8997  | 0.8984 | <b>0.9341</b> | 0.8874        | 0.8879   | 0.8384        |
| GM5  | 0.8476 | 0.8561 | 0.8558 | 0.8797 | 0.8757   | 0.7952 | 0.9035 | 0.8834  | 0.8737 | <b>0.9078</b> | 0.8900        | 0.8793   | 0.8385        |
| GM6  | 0.8569 | 0.8612 | 0.8553 | 0.8748 | 0.8721   | 0.8069 | 0.8635 | 0.8700  | 0.8725 | <b>0.9015</b> | 0.8890        | 0.8427   | 0.7555        |
| GM7  | 0.8335 | 0.8129 | 0.8257 | 0.8562 | 0.9110   | 0.8890 | 0.9207 | 0.8547  | 0.8519 | 0.9062        | <b>0.9366</b> | 0.9301   | 0.8967        |
| GM8  | 0.8802 | 0.8799 | 0.8802 | 0.8842 | 0.8849   | 0.8544 | 0.8947 | 0.8603  | 0.8799 | <b>0.9153</b> | 0.8918        | 0.8845   | 0.8429        |
| Mean | 0.8483 | 0.8424 | 0.8551 | 0.8743 | 0.8791   | 0.8270 | 0.8881 | 0.8628  | 0.8693 | <b>0.9076</b> | 0.8948        | 0.8712   | 0.8285        |

表 1: 不同模型的 AUC 性能比较

| Recall | SVM    | RF     | 1DCNN  | 2DCNN  | HybridSN | CTN    | DMC    | GSC-ViT | MSSTT  | HOSD          | EATN          | MambaHSI | MambaGL       |
|--------|--------|--------|--------|--------|----------|--------|--------|---------|--------|---------------|---------------|----------|---------------|
| GM1    | 0.6251 | 0.6094 | 0.6887 | 0.7305 | 0.7447   | 0.6794 | 0.7496 | 0.6950  | 0.7317 | 0.8022        | 0.7398        | 0.7168   | <b>0.8031</b> |
| GM2    | 0.6052 | 0.5719 | 0.6513 | 0.7026 | 0.6794   | 0.5401 | 0.7750 | 0.6739  | 0.6892 | 0.7813        | <b>0.8490</b> | 0.7442   | 0.5037        |
| GM3    | 0.7314 | 0.7225 | 0.7312 | 0.7669 | 0.7756   | 0.6329 | 0.7636 | 0.7191  | 0.7538 | <b>0.8315</b> | 0.7619        | 0.6493   | 0.6274        |
| GM4    | 0.7897 | 0.7681 | 0.8066 | 0.8203 | 0.8021   | 0.7171 | 0.7769 | 0.8048  | 0.8016 | <b>0.8745</b> | 0.7786        | 0.7824   | 0.6814        |
| GM5    | 0.6998 | 0.7183 | 0.7205 | 0.7674 | 0.7593   | 0.5972 | 0.8172 | 0.7758  | 0.7553 | <b>0.8253</b> | 0.7903        | 0.7662   | 0.6858        |
| GM6    | 0.7180 | 0.7268 | 0.7189 | 0.7562 | 0.7512   | 0.6234 | 0.7328 | 0.7480  | 0.7532 | <b>0.8119</b> | 0.7878        | 0.6945   | 0.5168        |
| GM7    | 0.6833 | 0.6390 | 0.6813 | 0.7373 | 0.8394   | 0.7969 | 0.8586 | 0.7302  | 0.7293 | 0.8436        | <b>0.9044</b> | 0.8694   | 0.8098        |
| GM8    | 0.7671 | 0.7674 | 0.7728 | 0.7775 | 0.7787   | 0.7185 | 0.7991 | 0.7300  | 0.7694 | <b>0.8430</b> | 0.7937        | 0.7771   | 0.6952        |
| Mean   | 0.7025 | 0.6904 | 0.7214 | 0.7573 | 0.7663   | 0.6632 | 0.7841 | 0.7346  | 0.7479 | <b>0.8266</b> | 0.8007        | 0.7500   | 0.6654        |

表 2: 不同模型在 Recall 指标下的性能对比