

Supplemental materials for:

Circadian rhythm parameters differentiate euthymic, manic and depressive mood states in bipolar disorders – a pilot study

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Table S1. AUC values for all logistic models based on activity data.

Logistic models	AUC values
Depressive	
<i>MeanDiff</i> , min. non-wear, age, gender	0.9091861083186005
<i>FormDiff</i> , min. non-wear, age, gender	0.9009689049121226
<i>IS</i> , min. non-wear, age, gender	0.9097292034989196
<i>IV</i> , min. non-wear, age, gender	0.8952540006538893
<i>Min. non-wear</i> , age, gender	0.9031167307981188
(Hypo)manic	
<i>MeanDiff</i> , min. non-wear, age, gender	0.8934977776599599
<i>FormDiff</i> , min. non-wear, age, gender	0.896859581007846
<i>IS</i> , min. non-wear, age, gender	0.9006662601949297
<i>IV</i> , min. non-wear, age, gender	0.8968538033995447
<i>Min. non-wear</i> , age, gender	0.8955831543974057

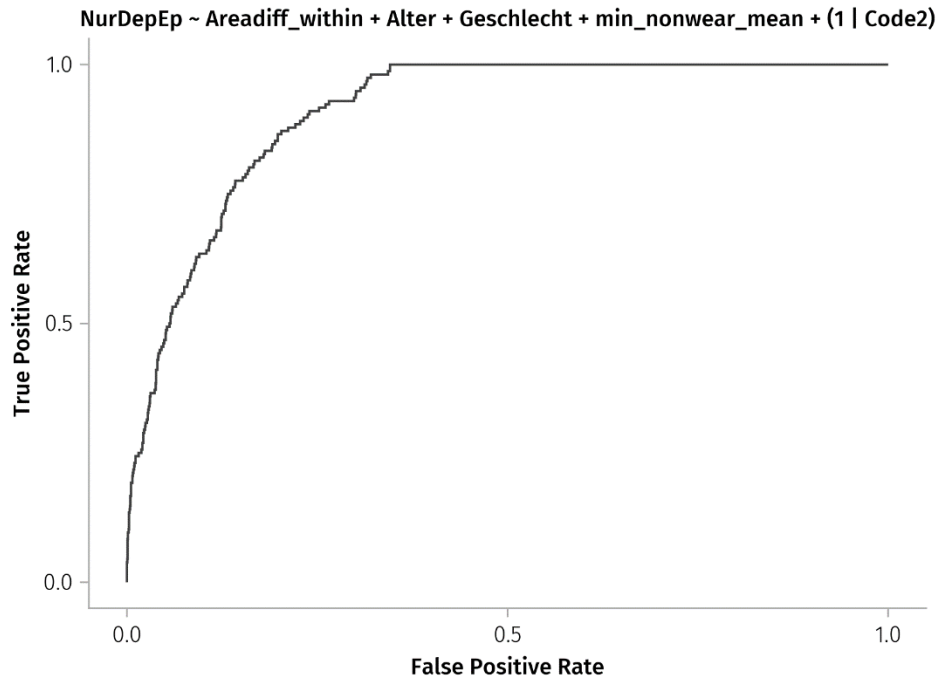


Figure S1. ROC curve for the logistic mixed-effects model predicting depressive episodes based on mean activity differences (Areadiff_within resp. MeanDiff), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model's overall ability to discriminate between depressive and euthymic days.

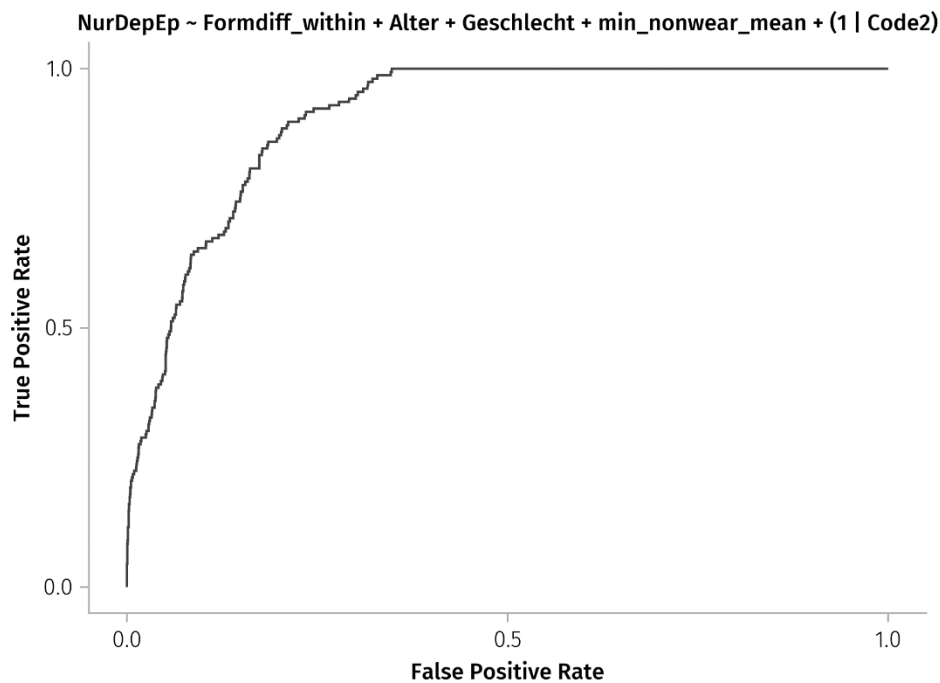


Figure S2. ROC curve for the logistic mixed-effects model predicting depressive episodes based on circadian form differences (Formdiff_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model's overall ability to discriminate between depressive and euthymic days at the day level.

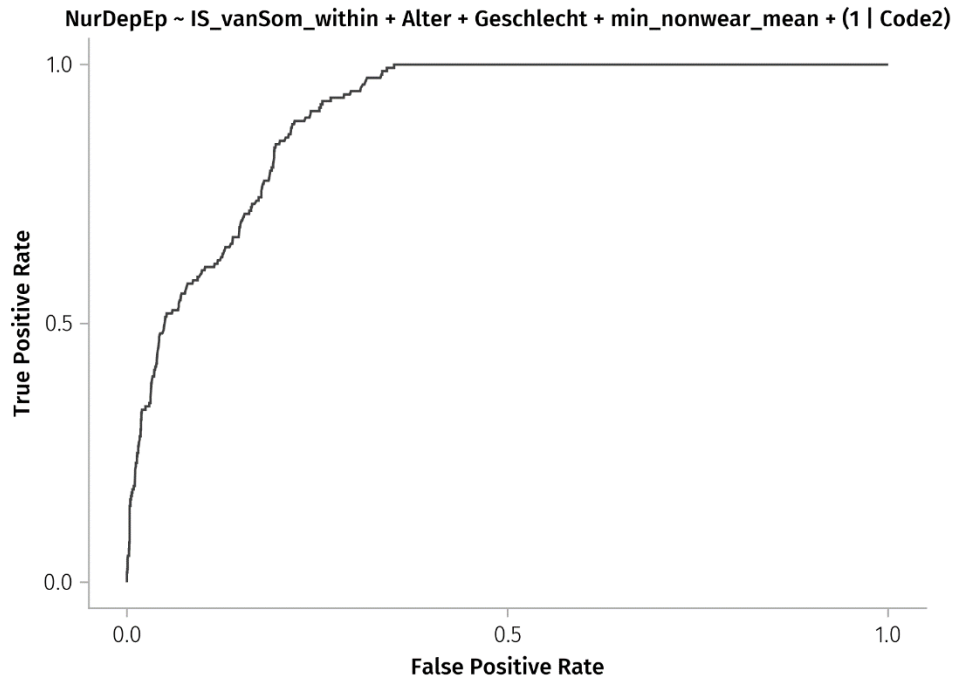


Figure S3. ROC curve for the logistic mixed-effects model predicting depressive episodes based on differences in interdaily stability (IS_vanSom_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model's overall ability to discriminate between depressive and euthymic days at the day level.

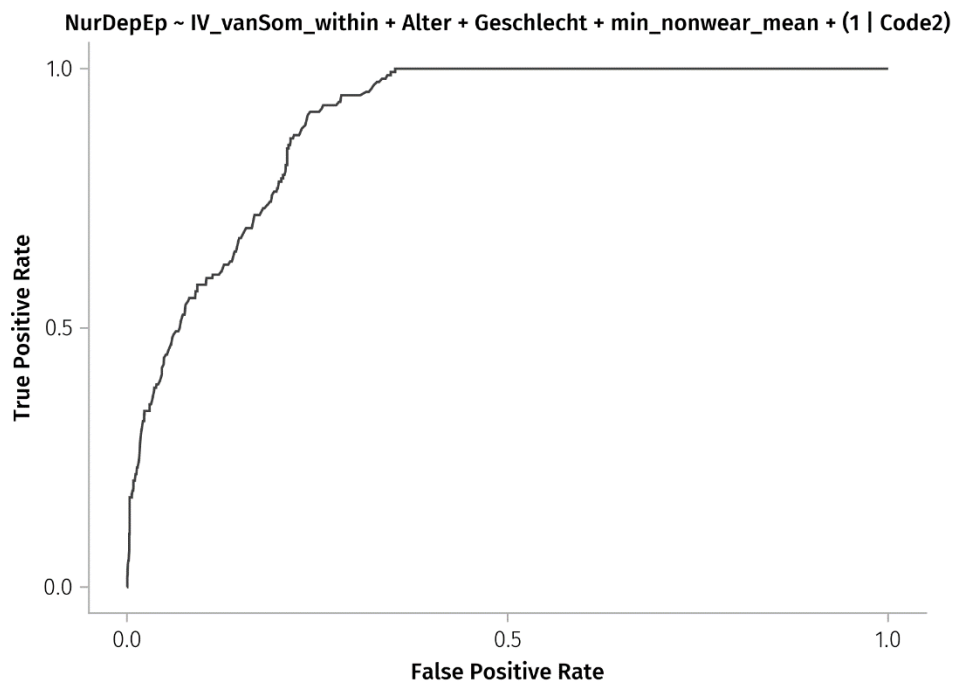


Figure S4. ROC curve for the logistic mixed-effects model predicting depressive episodes based on differences in intradaily variability (IV_vanSom_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model's overall ability to discriminate between depressive and euthymic days at the day level.

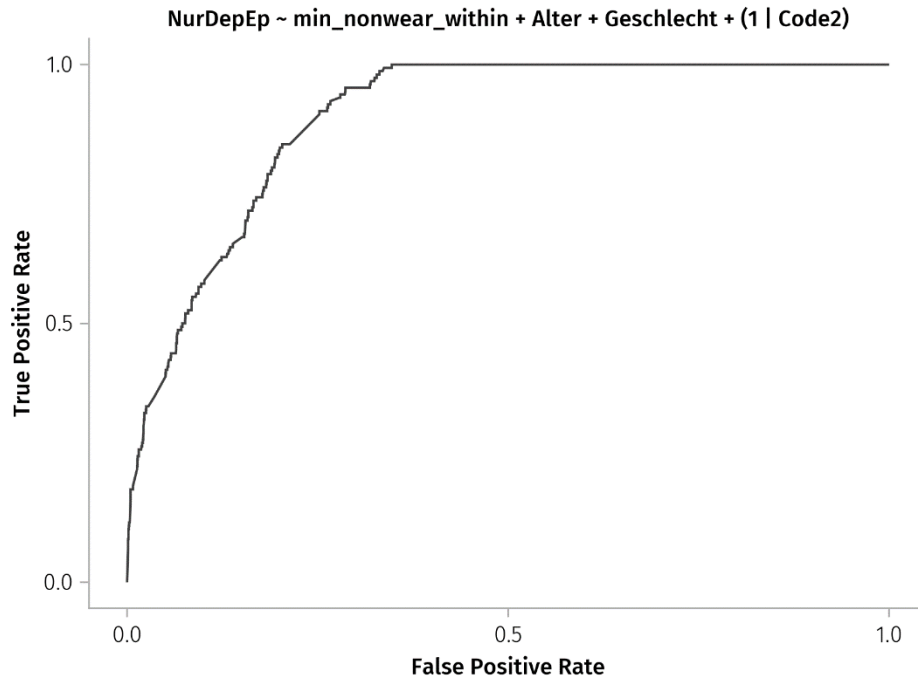


Figure S5. ROC curve for the logistic mixed-effects model predicting depressive episodes based on within-person variation in non-wear time, age, and gender. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between depressive and euthymic days at the day level.

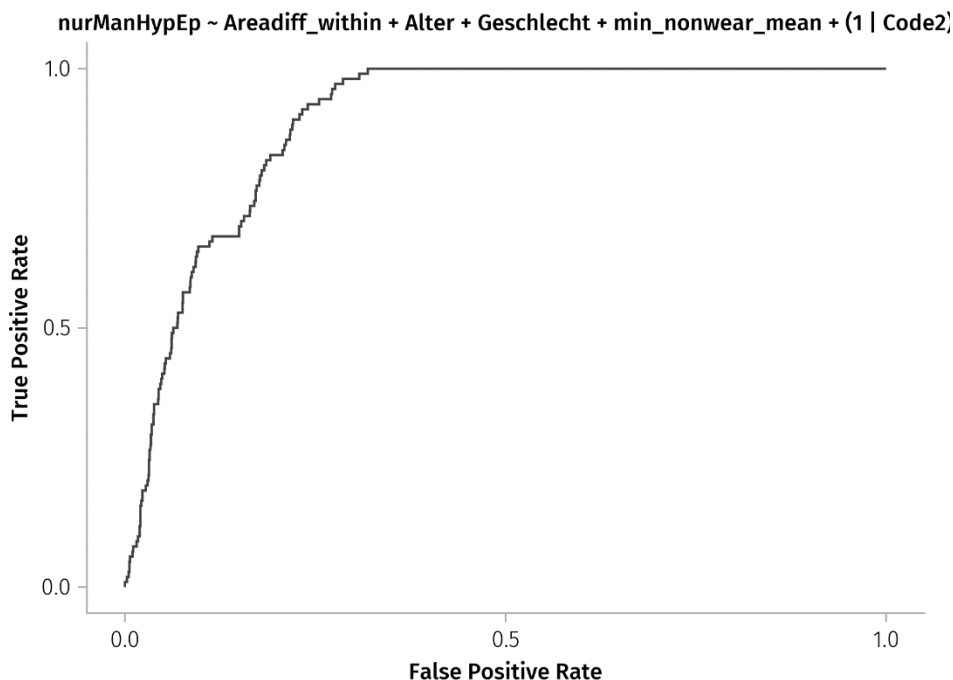


Figure S6. ROC curve for the logistic mixed-effects model predicting (hypo)manic episodes based on mean activity differences (Areadiff_within resp. MeanDiff), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between (hypo)manic and euthymic days at the day level.

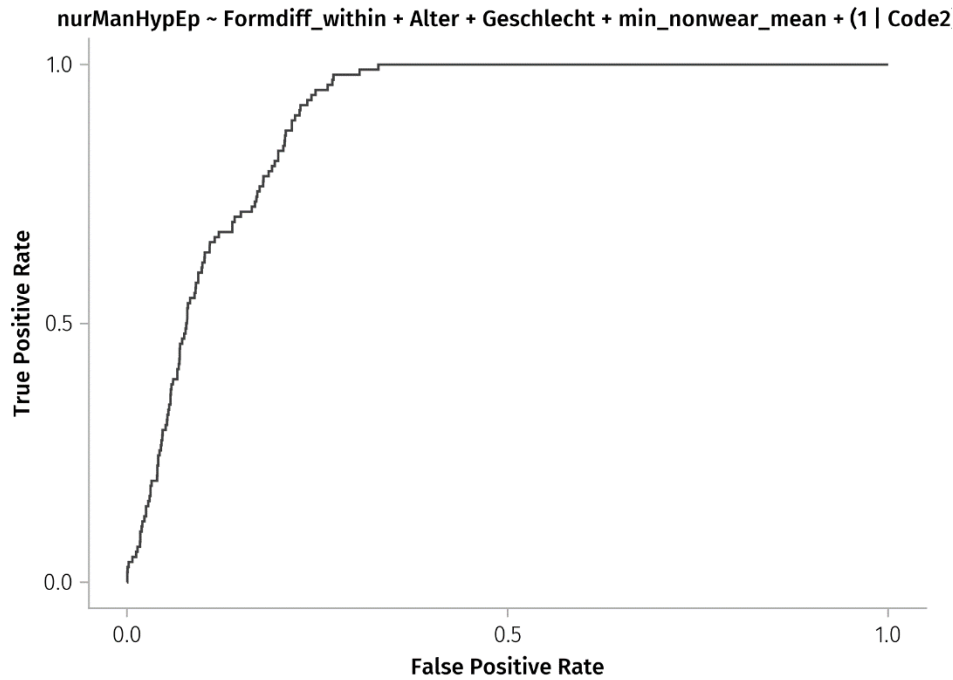


Figure S7. ROC curve for the logistic mixed-effects model predicting (hypo)manic episodes based on circadian form differences (Formdiff_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between (hypo)manic and euthymic days at the day level.

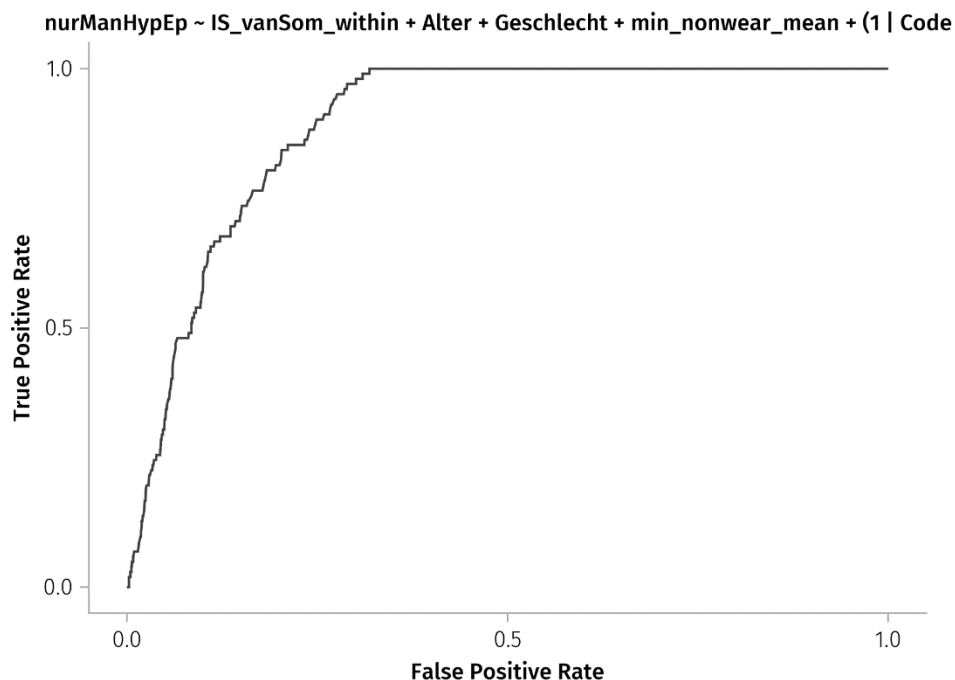


Figure S8. ROC curve for the logistic mixed-effects model predicting (hypo)manic episodes based on differences in interdaily stability (IS_vanSom_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between (hypo)manic and euthymic days at the day level.

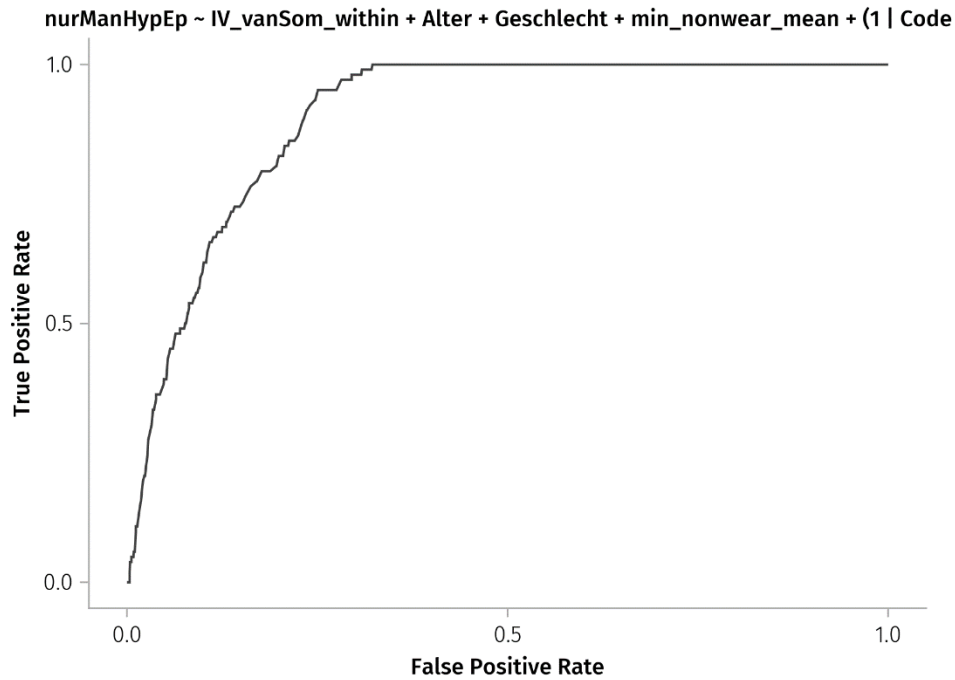


Figure S9. ROC curve for the logistic mixed-effects model predicting (hypo)manic episodes based on differences in intradaily variability (IV_vanSom_within), age, gender, and non-wear time. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between (hypo)manic and euthymic days at the day level.

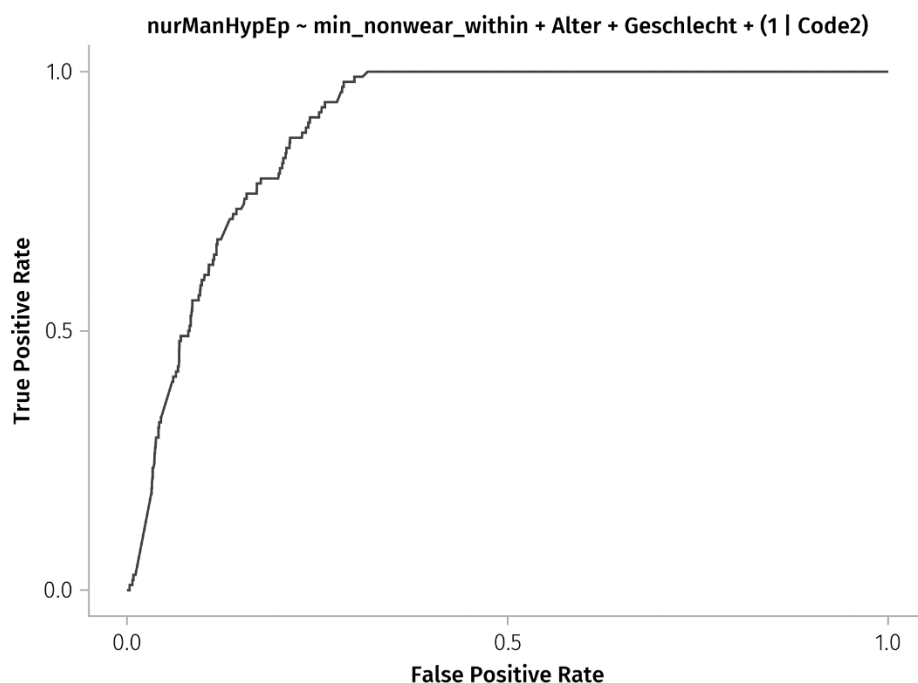


Figure S10. ROC curve for the logistic mixed-effects model predicting (hypo)manic episodes based on within-person variation in non-wear time, age, and gender. The curve illustrates the trade-off between sensitivity (true positive rate) and 1 – specificity (false positive rate) across all possible classification thresholds. The area under the curve (AUC) quantifies the model’s overall ability to discriminate between (hypo)manic and euthymic days at the day level.