Figure captions:

Fig. 1. The general framework of our proposed S3LRR model.

Fig. 2. Emotion recognition results (%) of compared models represented by confusion matrices.

Fig. 3. Identification of critical EEG frequency bands in emotion recognition.

Fig. 4. Identification of critical EEG channels and brain regions in emotion recognition.

Fig. 5. Topographical show of critical brain regions corresponding to different EEG frequency bands in emotion recognition.

Fig. 6. The recognition performance of S3LRR in terms of different *λ*s on subject 1.

Fig. 7. The convergence property of S3LRR in the three cases of subject 1.

Table titles:

TABLE I CROSS-SESSION EMOTION RECOGNITION ACCURACIES (%) OF COMPARED MODELS.

TABLE II EMOTION RECOGNITION RESULTS (%) BY DIFFERENT FEATURE SELECTION MODELS.

TABLE III THE NUMBERS OF SELECTED FEATURES CORRESPONDING TO THE BEST ACCURACIES OBTAINED BY THE FEATURE SELECTION MODELS.