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Weighted kappa loss function for multi-class classification of ordinal data in deep learning

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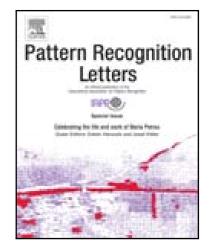
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Highlights

- Proposal of weighted kappa as loss function for ordinal regression in deep learning.
- Derivation of equations required for applying first order optimization algorithms.
- Solve three real-world ordinal classification problem.
- Performance comparison of the models trained by both log loss and kappa loss.
- Check stability of the kappa loss function using different type of data.

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