

Novelty Assessment Report

Paper: Conformal Prediction for Long-Tailed Classification

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Abstract

Many real-world classification problems, such as plant identification, have extremely long-tailed class distributions. In order for prediction sets to be useful in such settings, they should (i) provide good class-conditional coverage, ensuring that rare classes are not systematically omitted from the prediction sets, and (ii) be a reasonable size, allowing users to easily verify candidate labels. Unfortunately, existing conformal prediction methods, when applied to the long-tailed setting, force practitioners to make a binary choice between small sets with poor class-conditional coverage or sets with very good class-conditional coverage but that are extremely large. We propose methods with guaranteed marginal coverage that smoothly trade off between set size and class-conditional coverage. First, we introduce a new conformal score function, coined prevalence-adjusted softmax, that targets macro-coverage, a relaxed notion of class-conditional coverage. Second, we propose a label-weighted conformal prediction method that allows us to interpolate between marginal and class-conditional conformal prediction. We demonstrate our methods on $Pl@ntNet-300K$ and $iNaturalist-2018$, two long-tailed image datasets with 1,081 and 8,142 classes, respectively.

Disclaimer

This report is **AI-GENERATED** using Large Language Models and WisPaper (a scholar search engine). It analyzes academic papers' tasks and contributions against retrieved prior work. While this system identifies **POTENTIAL** overlaps and novel directions, **ITS COVERAGE IS NOT EXHAUSTIVE AND JUDGMENTS ARE APPROXIMATE**. These results are intended to assist human reviewers and **SHOULD NOT** be relied upon as a definitive verdict on novelty.

Note that some papers exist in multiple, slightly different versions (e.g., with different titles or URLs). The system may retrieve several versions of the same underlying work. The current automated pipeline does not reliably align or distinguish these cases, so human reviewers will need to disambiguate them manually.

If you have any questions, please contact: mingzhang23@m.fudan.edu.cn

Core Task Landscape

This paper addresses: **Conformal Prediction for Long-Tailed Classification**

A total of **35 papers** were analyzed and organized into a taxonomy with **17 categories**.

Taxonomy Overview

The research landscape has been organized into the following main categories:

- **Class-Conditional Coverage Methods**
- **Empirical Evaluation and Robustness Studies**
- **Training-Based and Integrated Frameworks**
- **Domain-Specific Applications**
- **Explainability and Fairness Integration**
- **Open-Set and Survival Analysis Extensions**
- **Threshold Optimization and Churn Prediction**
- **General Frameworks and Tutorials**

Complete Taxonomy Tree

- Conformal Prediction for Long-Tailed Classification Survey Taxonomy
- Class-Conditional Coverage Methods
 - Prevalence-Adjusted and Label-Weighted Approaches ★ (2 papers)
 - [0] Conformal Prediction for Long-Tailed Classification (Anon et al., 2026) [View paper](#)
 - [1] Conformal Prediction Meets Long-tail Classification (Liu, 2025) [View paper](#)
 - Rank Calibration and Augmented Label Methods (1 papers)
 - [2] Conformal prediction for class-wise coverage via augmented label rank calibration (Taha Belkhouja, 2024) [View paper](#)
 - Mondrian Cross-Conformal Prediction (2 papers)
 - [27] Bias reduction through conditional conformal prediction (Tuwe LÄ¶fstrÄ¶m, 2015) [View paper](#)
 - [35] Applying Mondrian Cross-Conformal Prediction To Estimate Prediction Confidence on Large Imbalanced Bioactivity Data Sets. (Jiangming Sun, 2017) [View paper](#)
- Empirical Evaluation and Robustness Studies
 - Distribution Shift and Long-Tail Benchmarking (2 papers)
 - [6] Empirically validating conformal prediction on modern vision architectures under distribution shift and long-tailed data (Kasa, 2023) [View paper](#)
 - [14] Investigating Conformal Prediction Under Distribution Shift and Long-tailed Data (Kasa, 2024) [View paper](#)
 - Set-Valued Classification and Loss Functions (1 papers)
 - [3] Loss functions for set-valued classification (Garcin, 2023) [View paper](#)
- Training-Based and Integrated Frameworks
 - Conformal-in-the-Loop Training (1 papers)
 - [23] Conformal-in-the-Loop for Learning with Imbalanced Noisy Data (John Brandon Graham-Knight, 2024) [View paper](#)
 - Cross-Conformal Prediction with Ensembles (2 papers)
 - [13] Ensemble Learning in Uncertainty Quantification for Multi-Label Prediction: From Theoretical Foundations to Medical Image Understanding (Chatzipapadopoulou, 2025) [View paper](#)
 - [25] On the Integration of Cross-Conformal Prediction, Ensembles, and Sampling for Uncertainty Quantification in One-Class Anomaly Detection (I Garg, 2025) [View paper](#)
 - Conformal Data Synthesis (2 papers)

- [28] Conformalised data synthesis (Julia A. Meister, 2023) [View paper](#)
- [31] Outlier Synthesis using Deep Generative Model based Conformal Prediction (i;°i±i, 2025) [View paper](#)
- Domain-Specific Applications
 - Medical and Healthcare Applications (3 papers)
 - [4] Conformal uncertainty quantification to evaluate predictive fairness of foundation AI model for skin lesion classes across patient demographics (Pal, 2025) [View paper](#)
 - [7] Predicting IDH Mutation in Glioma Patients Using Deep Learning Algorithms with Conformal Prediction (Daniel Elyassirad, 2025) [View paper](#)
 - [32] ACCURACIES, UNCERTAINTIES, AND PITFALLS IN USING DEEP LEARNING FRAMEWORKS IN ORTHOPAEDICS AND MITIGATION STRATEGIES (Bhushan Borotikar, 2025) [View paper](#)
 - Autonomous Systems and Perception (3 papers)
 - [12] É-SSC: Uncertainty-Aware Camera-based 3D Semantic Scene Completion (Su, 2024) [View paper](#)
 - [18] Pre-crash injury risk prediction with guaranteed confidence level: a conformal and interpretable framework (Wei Junhao, 2025) [View paper](#)
 - Text and Sentiment Classification (3 papers)
 - [16] Reliable uncertainty estimation in emotion recognition in conversation using conformal prediction framework (Samad Roohi, 2025) [View paper](#)
 - [17] Predicting Amazon customer reviews with deep confidence using deep learning and conformal prediction (Ulf, 2022) [View paper](#)
 - [30] Efficient Text Classification with Conformal In-Context Learning (Ippokratis Pantelidis, 2025) [View paper](#)
 - Chemoinformatics and Toxicity Prediction (2 papers)
 - [19] Conformal Predictors for Compound Activity Prediction (Paolo Toccacheli, 2022) [View paper](#)
 - [20] Traditional Machine and Deep Learning for Predicting Toxicity Endpoints (Ulf Norinder, 2022) [View paper](#)
 - Ecological and Transportation Applications (2 papers)
 - [15] Predicting Larch Casebearer damage with confidence using Yolo network models and conformal prediction (Ulf Norinder, 2023) [View paper](#)
 - [21] Enhancing Mode-Choice Models with Conformal Prediction: Uncertainty Quantification and Decision Support Using Tree-Based Machine Learning (B Ramin, 2025) [View paper](#)
- Explainability and Fairness Integration (2 papers)
 - [5] ConformaSight: Conformal prediction-based global and model-agnostic explainability framework (Fatima Rabia Yapicioglu, 2024) [View paper](#)
 - [22] Fairness verification algorithms and bias mitigation mechanisms for AI criminal justice decision systems (Longjin Zheng, 2025) [View paper](#)
- Open-Set and Survival Analysis Extensions (2 papers)
 - [8] Conformal prediction using random survival forests (Henrik BostrÅm, 2017) [View paper](#)
 - [10] Conformal Inference for Open-Set and Imbalanced Classification (Zhou Yan-fei, 2025) [View paper](#)
- Threshold Optimization and Churn Prediction (2 papers)
 - [11] GHOST: Adjusting the Decision Threshold to Handle Imbalanced Data in Machine Learning (Esposito Carmen, 2021) [View paper](#)
 - [34] Learning from Uncertainty: Improving Churn Prediction Learning using Conformal Confidence Intervals (Yameng Guo, 2024) [View paper](#)
- General Frameworks and Tutorials (4 papers)
 - [9] Practical Guide to Applied Conformal Prediction in Python (Manokhin, 2023) [View paper](#)
 - [24] Binary classification of imbalanced datasets using conformal prediction (Ulf Norinder, 2017) [View paper](#)
 - [26] Supervised Learning Approaches for Robust Predictive Modelling in Data Science (Varsharani T. Dond, 2025) [View paper](#)
 - [29] Topics on Asymmetric Classification (Chakraborty, 2023) [View paper](#)

Narrative

Core task: Conformal prediction for long-tailed classification problems. The field of conformal prediction has expanded to address diverse challenges in uncertainty quantification, with the taxonomy revealing several major branches. Class-Conditional Coverage Methods focus on achieving valid coverage guarantees for individual classes, particularly through prevalence-adjusted and label-weighted approaches that handle imbalanced data. Training-Based and Integrated Frameworks explore how conformal techniques can be embedded during model training or combined with loss functions, as seen in works like Set-Valued Classification Loss[3]. Domain-Specific Applications demonstrate the versatility of conformal methods across medical imaging, autonomous driving, and other specialized contexts, while Empirical Evaluation and Robustness Studies investigate performance under distribution shift and real-world conditions. Additional branches address Explainability and Fairness Integration, Open-Set and Survival Analysis Extensions, and Threshold Optimization, reflecting the breadth of methodological innovation and practical deployment scenarios.

A particularly active line of work centers on adapting conformal prediction to class imbalance and long-tailed distributions, where standard methods may produce overly conservative prediction sets for rare classes. Conformal Long-Tailed[0] sits squarely within the Class-Conditional Coverage Methods branch, specifically under Prevalence-Adjusted and Label-Weighted Approaches, addressing the challenge of maintaining valid coverage across all classes despite severe imbalance. This work shares thematic concerns with Conformal Long-tail[1], which also tackles long-tailed scenarios, and contrasts with training-integrated approaches like Set-Valued Classification Loss[3] that modify the learning objective itself. Meanwhile, fairness-aware methods such as Fairness Skin Lesion[4] and explainability tools like ConformaSight[5] highlight complementary dimensions—ensuring equitable coverage and interpretability—that intersect with but extend beyond the core imbalance problem. The landscape reveals ongoing tension between post-hoc calibration strategies and deeper integration with model training, with Conformal Long-Tailed[0] exemplifying the former by adjusting thresholds to respect class-specific prevalence.

Related Works in Same Category

The following **1 sibling papers** share the same taxonomy leaf node with the original paper:

1. Conformal Prediction Meets Long-tail Classification

Authors: Liu, Shuqi, Huang JianGuo, Shuqi Liu, Ong, et al. (8 authors total) | **Year/Venue:** 2025 | **URL:** [View paper](#)

Abstract

Conformal Prediction (CP) is a popular method for uncertainty quantification that converts a pretrained model's point prediction into a prediction set, with the set size reflecting the model's confidence. Although existing CP methods are guaranteed to achieve marginal

coverage, they often exhibit imbalanced coverage across classes under long-tail label distributions, tending to over cover the head classes at the expense of under covering the remaining tail classes. This under coverage is particu...

Relationship Analysis

Both papers belong to the prevalence-adjusted and label-weighted approaches category, addressing conformal prediction under long-tailed distributions by adjusting scores based on class prevalence. They overlap in targeting improved class-conditional coverage through prevalence-based adjustments: the original paper proposes prevalence-adjusted softmax (PAS) that divides predicted probabilities by class prevalence to optimize macro-coverage, while the candidate paper introduces Tail-Aware CP (TACP) that adds selective rank regularization weighted by class membership to reduce head-tail coverage gaps. The key difference is that the original paper focuses on optimizing the macro-coverage/set-size trade-off through score function design, whereas the candidate paper explicitly targets head-tail coverage balance through adaptive penalty terms and extends to soft reweighting (sTACP) for class-conditional balance.

Contributions Analysis

Overall novelty summary. The paper proposes prevalence-adjusted softmax (PAS) and label-weighted conformal prediction methods to address long-tailed classification, targeting a smooth trade-off between set size and class-conditional coverage. It resides in the 'Prevalence-Adjusted and Label-Weighted Approaches' leaf under 'Class-Conditional Coverage Methods', sharing this leaf with only one sibling paper (Conformal Long-tail). This indicates a relatively sparse research direction within the broader taxonomy of 35 papers across multiple branches, suggesting the specific combination of prevalence adjustment and label weighting for long-tailed conformal prediction remains underexplored.

The taxonomy reveals that class-conditional coverage methods branch into three distinct approaches: prevalence-adjusted techniques (where this paper sits), rank calibration methods, and Mondrian cross-conformal partitioning. Neighboring branches include training-based frameworks that integrate conformal prediction into learning loops and empirical studies examining distribution shift. The paper's post-hoc calibration strategy contrasts with training-integrated methods like Set-Valued Classification Loss, while its focus on class imbalance connects to fairness-aware conformal methods in adjacent branches. The taxonomy's scope notes clarify that this work excludes rank-based calibration and Mondrian partitioning, positioning it as a distinct approach within the class-conditional coverage landscape.

Among 29 candidates examined through limited semantic search, none of the three core contributions—PAS score function (9 candidates examined), INTERP-Q interpolation procedure (10 candidates), and WPAS extension (10 candidates)—were clearly refuted by prior work. The PAS score function, which adjusts softmax outputs by class prevalence to target macro-coverage, appears novel within the examined scope. The INTERP-Q method for interpolating between marginal and class-conditional thresholds similarly lacks direct precedent among the candidates reviewed. The WPAS extension, combining both techniques, also shows no overlapping prior work in the limited search, though the small candidate pool and single sibling paper suggest the analysis captures a narrow slice of potentially relevant literature.

Based on the top-29 semantic matches and the sparse taxonomy leaf (one sibling paper), the work appears to introduce distinct technical mechanisms for balancing coverage and set size in long-tailed settings. However, the limited search scope and the presence of only one closely related paper in the taxonomy leaf mean this assessment reflects novelty within a constrained comparison set rather than exhaustive field coverage. Broader searches or examination of rank calibration and Mondrian methods might reveal additional connections not captured here.

This paper presents **3 main contributions**, each analyzed against relevant prior work:

Contribution 1: Prevalence-adjusted softmax (PAS) conformal score function

Description: The authors derive an oracle-optimal set form for trading off set size and macro-coverage, then propose the PAS score function that approximates these oracle sets by thresholding on estimated probability ratios adjusted by class prevalence. This score function is designed to achieve better macro-coverage than standard methods in long-tailed settings.

This contribution was assessed against **9 related papers** from the literature. Papers with potential prior art are analyzed in detail with textual evidence; others receive brief assessments.

1. Conformal Prediction Meets Long-tail Classification

URL: [View paper](#)

Brief Assessment

Conformal Long-tail[1] focuses on balancing head-tail coverage in long-tailed distributions through rank-based regularization (TACP/STACP), not on deriving oracle-optimal sets or prevalence-adjusted probability ratios for macro-coverage as in the original paper.

2. Conformal prediction for class-wise coverage via augmented label rank calibration

URL: [View paper](#)

Brief Assessment

Augmented Label Rank[2] focuses on rank calibration for class-conditional coverage rather than prevalence-adjusted score functions. The candidate uses label rank information to selectively threshold classes, while the original proposes adjusting scores by class prevalence ratios.

3. CP: Leveraging Geometry for Conformal Prediction via Canonicalization

URL: [View paper](#)

Brief Assessment

Geometry Canonicalization[47] focuses on geometric data shifts (rotations, transformations) in conformal prediction, not on class-conditional coverage or long-tailed distributions. The paper addresses geometric equivariance and canonicalization rather than class prevalence adjustments for macro-coverage.

4. Saccp: Spatially-aware conformal prediction in uncertainty quantification of medical image segmentation

URL: [View paper](#)

Brief Assessment

Spatially-aware Medical Segmentation[46] focuses on medical image segmentation with spatial adaptation near critical structures, not on class-conditional coverage in long-tailed classification settings.

5. Investigating Conformal Prediction Under Distribution Shift and Long-tailed Data

URL: [View paper](#)

Brief Assessment

Distribution Shift Investigation[14] focuses on conformal prediction under distribution shift and long-tailed data but does not propose the PAS score function. The candidate's abstract mentions investigating CP under these settings and improving prediction sets using unlabeled data, but makes no mention of prevalence-adjusted score functions or macro-coverage optimization.

6. $\hat{I} \pm \delta$ -OCC: Uncertainty-Aware Camera-based 3D Semantic Occupancy Prediction

URL: [View paper](#)

Brief Assessment

OCC Camera Occupancy[33] addresses 3D semantic occupancy prediction for autonomous vehicles using a hierarchical conformal prediction method with a KL-based score function for class-imbalanced datasets. This is a different application domain (3D vision) than the original paper's long-tailed image classification, and uses a different score function design (KL divergence-based rather than prevalence-adjusted probability ratios).

7. Insurance Claim Prediction Using Unbiased Confidence Guarantees

URL: [View paper](#)

Brief Assessment

Insurance Claim Prediction[48] focuses on imbalanced binary classification for insurance claims using conformal prediction, not on deriving oracle-optimal score functions for macro-coverage in multi-class long-tailed settings with thousands of classes.

8. Conformal Inference for Open-Set and Imbalanced Classification

URL: [View paper](#)

Brief Assessment

Open-Set Imbalanced[10] addresses open-set classification with unseen labels using conformal p-values and Good-Turing estimators, not score functions for class-conditional coverage in long-tailed distributions. The candidate focuses on testing whether labels are new rather than adjusting score thresholds for macro-coverage.

9. Class-Conditional Conformal Prediction for Imbalanced Data via Top-Classes

URL: [View paper](#)

Brief Assessment

Top-Classes Imbalanced[49] focuses on class-conditional coverage via double-calibration (score threshold and rank threshold) for top-k classes, not on designing score functions that adjust for class prevalence to optimize macro-coverage.

Contribution 2: INTERP-Q procedure for interpolating conformal thresholds

Description: The authors introduce INTERP-Q, which constructs prediction sets by linearly interpolating between CLASSWISE and STANDARD conformal quantile thresholds using a tunable parameter. This allows practitioners to smoothly trade off between set size and class-conditional coverage while maintaining marginal coverage guarantees.

This contribution was assessed against **10 related papers** from the literature. Papers with potential prior art are analyzed in detail with textual evidence; others receive brief assessments.

1. Conformal Prediction for Time Series

URL: [View paper](#)

Brief Assessment

Time Series Conformal[41] focuses on time series prediction intervals without data exchangeability requirements, not on interpolating marginal and class-conditional conformal thresholds for classification tasks.

2. Confidence on the Focal: Conformal Prediction with Selection-Conditional Coverage

URL: [View paper](#)

Brief Assessment

Selection-Conditional Coverage[44] addresses selection-conditional coverage guarantees for focal units chosen by data-driven processes, not the interpolation of marginal and class-conditional conformal thresholds for long-tailed classification that INTERP-Q targets.

3. Epistemic uncertainty in conformal scores: A unified approach

URL: [View paper](#)

Brief Assessment

Epistemic Conformal Scores[39] does not address interpolation between marginal and class-conditional conformal prediction thresholds. The candidate focuses on incorporating epistemic uncertainty into conformal scores through Bayesian modeling, not on interpolating between different coverage types.

4. Regression trees for fast and adaptive prediction intervals

URL: [View paper](#)

Brief Assessment

Regression Trees Intervals[40] focuses on regression prediction intervals using tree-based partitioning of feature space, not on interpolating between marginal and class-conditional conformal thresholds for classification tasks.

5. Conformal Prediction using Conditional Histograms

URL: [View paper](#)

Brief Assessment

Conditional Histograms[42] focuses on regression with continuous outcomes and constructs prediction intervals by finding shortest intervals under conditional histograms. It does not address the classification setting or interpolation between marginal and class-conditional conformal thresholds for multi-class problems.

6. Conformal Prediction Methods for Distribution Shifts and Causal Effect Estimation

URL: [View paper](#)

Brief Assessment

Distribution Shifts Causal[45] focuses on conformal prediction under distribution shifts and causal effect estimation, not on interpolating between marginal and class-conditional conformal thresholds for long-tailed classification.

7. Conformalized survival analysis with adaptive cutoffs

URL: [View paper](#)

Brief Assessment

Adaptive Cutoffs Survival[43] addresses survival analysis with censored data using adaptive cutoffs for censoring times, not classification with conformal prediction. The paper does not discuss interpolating between marginal and class-conditional conformal thresholds for classification tasks.

8. Conformal prediction with conditional guarantees

URL: [View paper](#)

Brief Assessment

Conditional Guarantees[36] focuses on interpolating between marginal and conditional coverage guarantees over covariate shifts, not on interpolating between CLASSWISE and STANDARD conformal quantile thresholds for long-tailed classification.

9. Posterior conformal prediction

URL: [View paper](#)

Brief Assessment

Posterior Conformal[37] focuses on mixture modeling of residual distributions to achieve conditional validity guarantees, not on interpolating between marginal and class-conditional conformal thresholds. The candidate's approach uses posterior distributions over cluster memberships rather than linear interpolation of quantile thresholds.

10. Kandinsky Conformal Prediction: Beyond Class- and Covariate-Conditional Coverage

URL: [View paper](#)

Brief Assessment

Kandinsky Conformal[38] focuses on group-conditional coverage guarantees for overlapping groups defined jointly on covariates and labels, not on interpolating between marginal and class-conditional thresholds for long-tailed classification.

Contribution 3: Weighted prevalence-adjusted softmax (WPAS) extension

Description: The authors extend PAS to WPAS, which allows users to specify class-dependent weights to prioritize coverage of certain classes (such as endangered species). This weighted score function optimizes for weighted macro-coverage rather than uniform macro-coverage across all classes.

This contribution was assessed against **10 related papers** from the literature. Papers with potential prior art are analyzed in detail with textual evidence; others receive brief assessments.

1. ConformoSight: Conformal prediction-based global and model-agnostic explainability framework

URL: [View paper](#)

Brief Assessment

ConformoSight[5] focuses on model-agnostic explainability for conformal prediction classifiers and addresses class-imbalance through uncertainty-aware explanations, not through weighted score functions for prioritizing specific class coverage as WPAS does.

2. Class-Conditional Conformal Prediction With Many Classes

URL: [View paper](#)

Brief Assessment

Many Classes Conditional[51] focuses on clustering classes with similar score distributions to achieve class-conditional coverage, not on weighted score functions that prioritize specific classes through user-defined weights.

3. Residual reweighted conformal prediction for graph neural networks

URL: [View paper](#)

Brief Assessment

Residual Reweighted GNN[50] focuses on graph neural networks with residual-based reweighting for heteroscedasticity in graph-structured data, not on weighted conformal prediction for prioritizing specific classes in long-tailed classification settings.

4. Confine: Conformal prediction for interpretable neural networks

URL: [View paper](#)

Brief Assessment

Confine Interpretable[54] focuses on conformal prediction for neural network interpretability using k-nearest neighbors in feature space, not on weighted class-dependent coverage optimization for long-tailed distributions as in the original paper's WPAS method.

5. Distribution-free Conformal Prediction for Ordinal Classification

URL: [View paper](#)

Brief Assessment

Ordinal Classification[53] focuses on ordinal classification with ordered class labels and uses conformal p-values with FWER control for contiguous/non-contiguous prediction sets. This is fundamentally different from WPAS, which addresses long-tailed classification by weighting classes based on user-specified priorities (e.g., endangered species) to optimize weighted macro-coverage.

6. ConU: Conformal Uncertainty in Large Language Models with Correctness Coverage Guarantees

URL: [View paper](#)

Brief Assessment

ConU LLM Correctness[52] focuses on conformal prediction for uncertainty quantification in natural language generation tasks using large language models, not on weighted conformal prediction methods for multi-class classification with class-dependent coverage priorities.

7. Saccp: Spatially-aware conformal prediction in uncertainty quantification of medical image segmentation

URL: [View paper](#)

Brief Assessment

Spatially-aware Medical Segmentation[46] uses spatial weighting based on distance to critical anatomical structures, not class-dependent weights for prioritizing coverage of specific classes in classification tasks.

8. Conformal prediction with conditional guarantees

URL: [View paper](#)

Brief Assessment

Conditional Guarantees[36] does not propose weighted score functions for prioritizing coverage of specific classes. The paper addresses conditional coverage over covariate shifts, not class-dependent weighting schemes.

9. Conformal Prediction for Hierarchical Data

URL: [View paper](#)

Brief Assessment

Hierarchical Data Conformal[55] focuses on conformal prediction for hierarchical/multivariate data with component-wise coverage, not on weighted class-dependent coverage for long-tailed classification problems.

10. Kandinsky Conformal Prediction: Beyond Class- and Covariate-Conditional Coverage

URL: [View paper](#)

Brief Assessment

Kandinsky Conformal[38] does not propose weighted score functions for prioritizing specific class coverage. It addresses conditional coverage through weight functions for group membership, not class-dependent weighting schemes.

Appendix: Text Similarity Detection

No high-similarity text segments were detected across any compared papers.

References

- [0] Conformal Prediction for Long-Tailed Classification [View paper](#)
- [1] Conformal Prediction Meets Long-tail Classification [View paper](#)
- [2] Conformal prediction for class-wise coverage via augmented label rank calibration [View paper](#)
- [3] Loss functions for set-valued classification [View paper](#)
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