

Figure 1 is a line graph showing Recall (Y-axis, ranging from 0 to 1) versus  $\log_{10}$  Samples (X-axis, ranging from 4 to 7). The graph compares the performance of the proposed extension method (solid lines) and the equality method (dashed lines) for different values of the extension parameter  $t$  (1, 10, 100, 1000).

The legend indicates the following series:

- extension:t=1 (Red solid line)
- equality:t=1 (Red dashed line)
- extension:t=10 (Blue solid line)
- equality:t=10 (Blue dashed line)
- extension:t=100 (Black solid line)
- equality:t=100 (Black dashed line)
- extension:t=1000 (Green solid line)
- equality:t=1000 (Green dashed line)

The graph demonstrates that the extension method consistently achieves higher recall than the equality method across all sample sizes and extension parameters. The recall increases with the number of samples and the extension parameter  $t$ . For  $t=1$ , the extension method starts at a recall of 1.0, while the equality method starts at approximately 0.8. For  $t=1000$ , the extension method starts at approximately 0.15, while the equality method starts at approximately 0.18.

