

# Resolution and accuracy in Congreve & Lamsdell matrices

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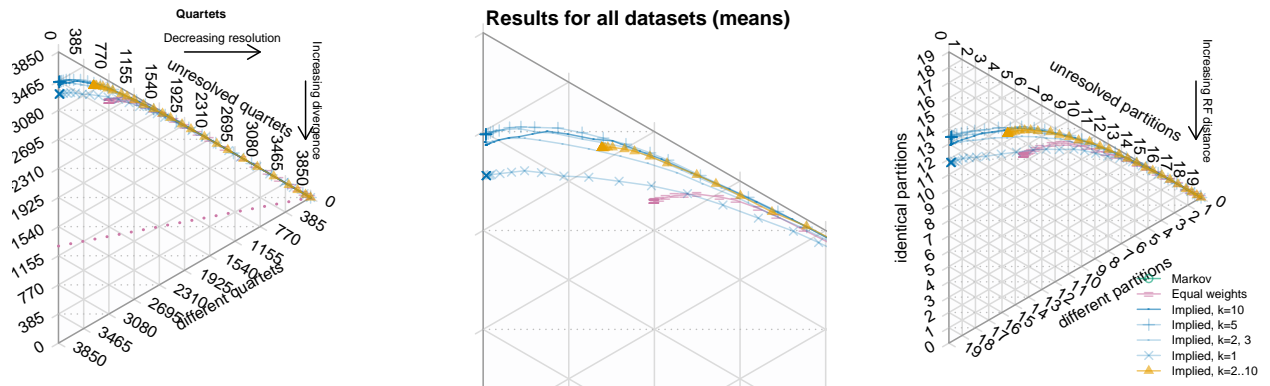
2020-01-20

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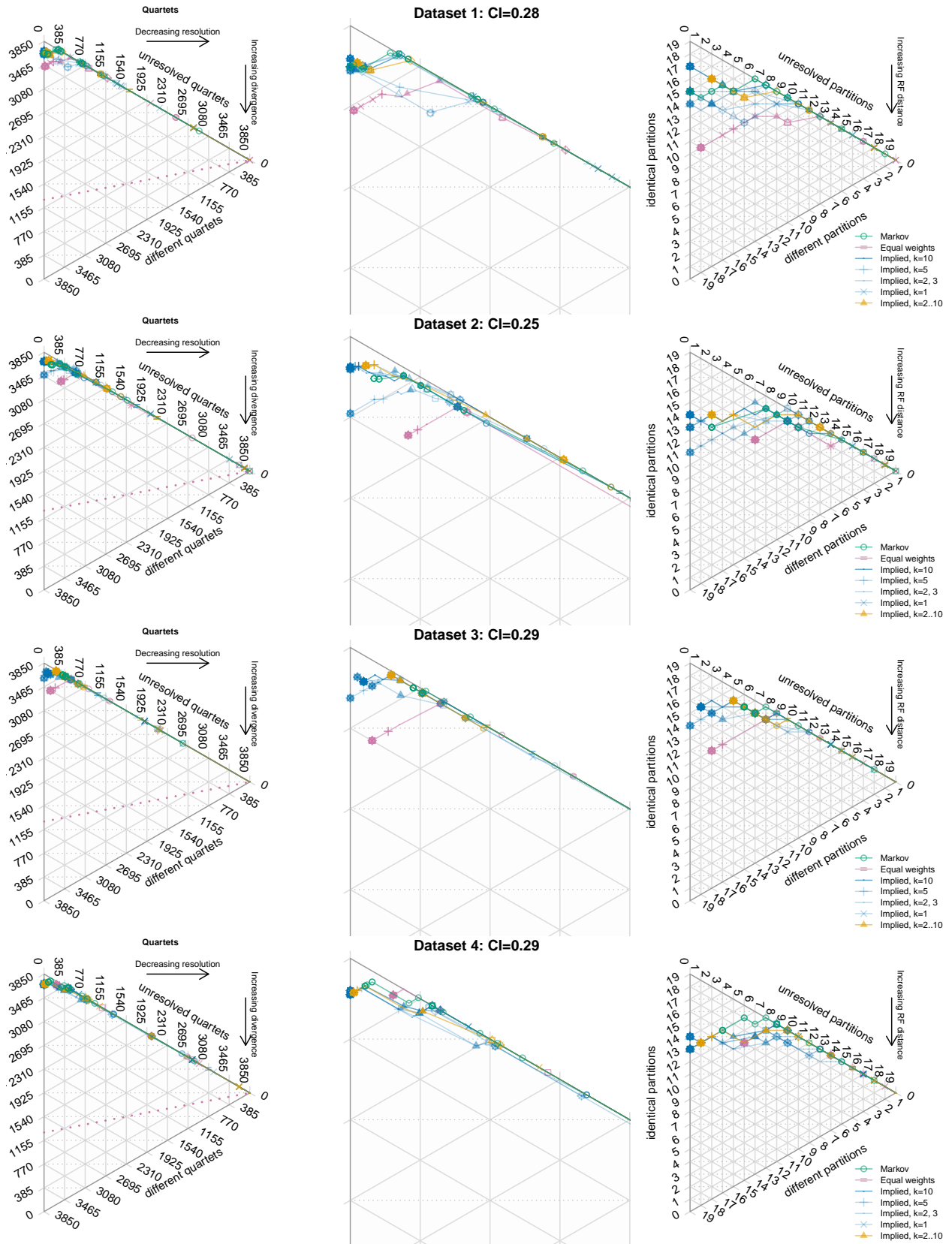
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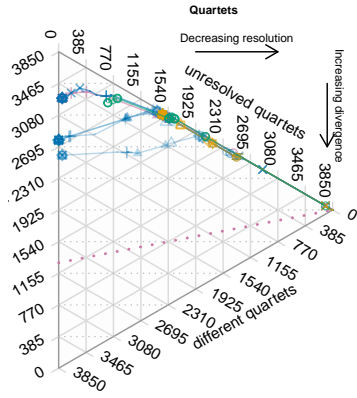
This page depicts the analytical results of all 100 matrices generated by Congreve & Lamsdell [1] using a ternary plotting approach [2], with quartets and partitions used as distance metrics.

## 0.1 Summary

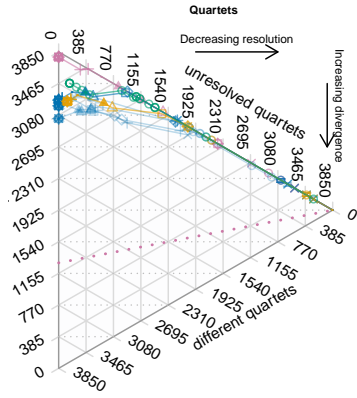
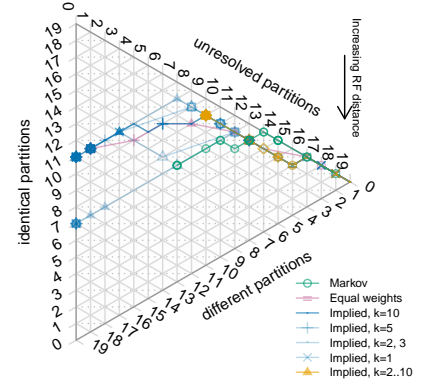
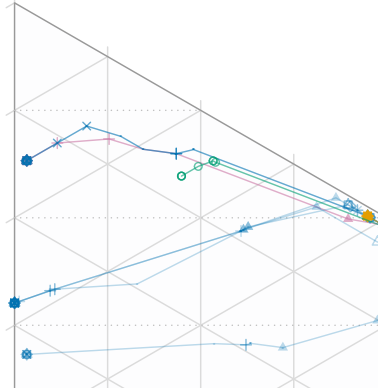


## 0.2 Trees 1–10

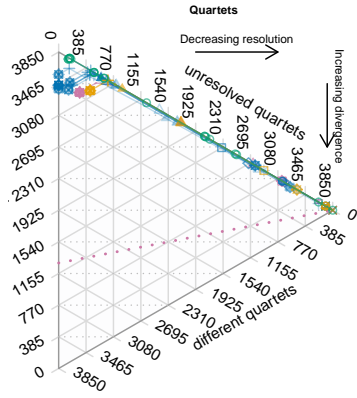
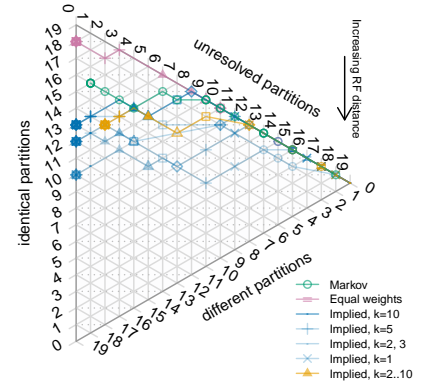
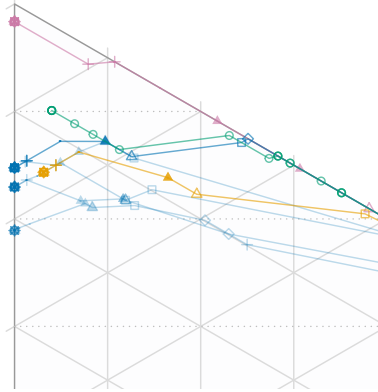




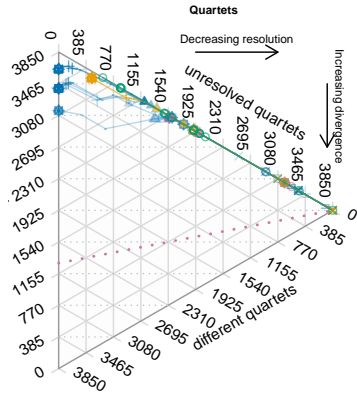
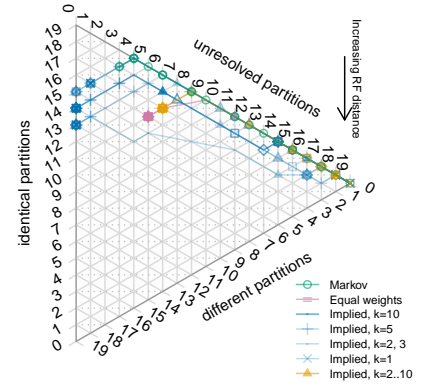
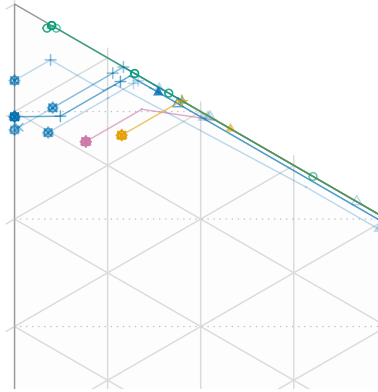
Dataset 5: CI=0.26



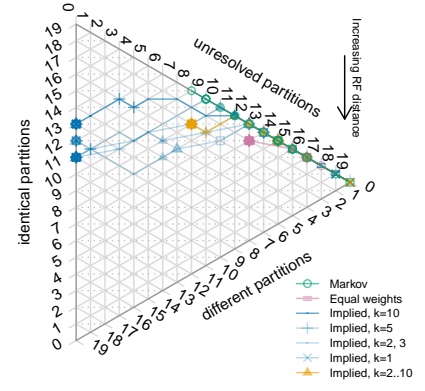
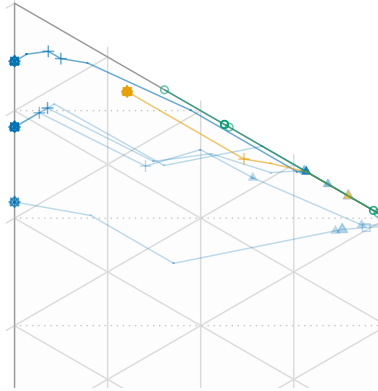
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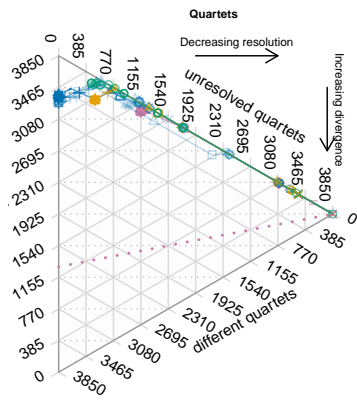


Dataset 7: CI=0.27

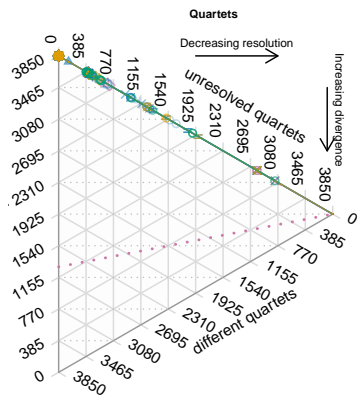
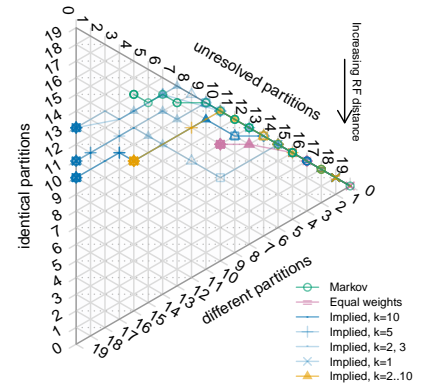
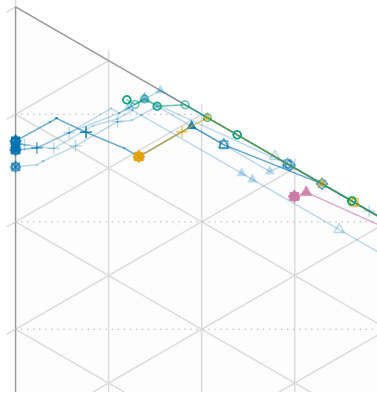


Dataset 8: CI=0.25

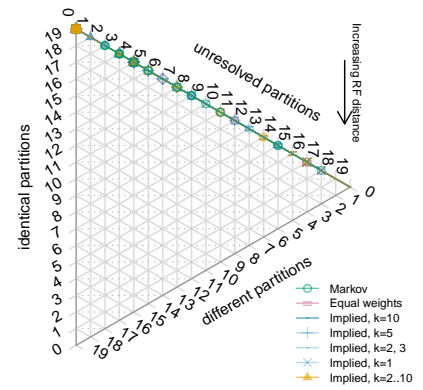
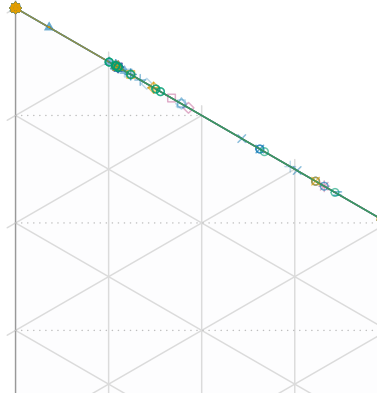




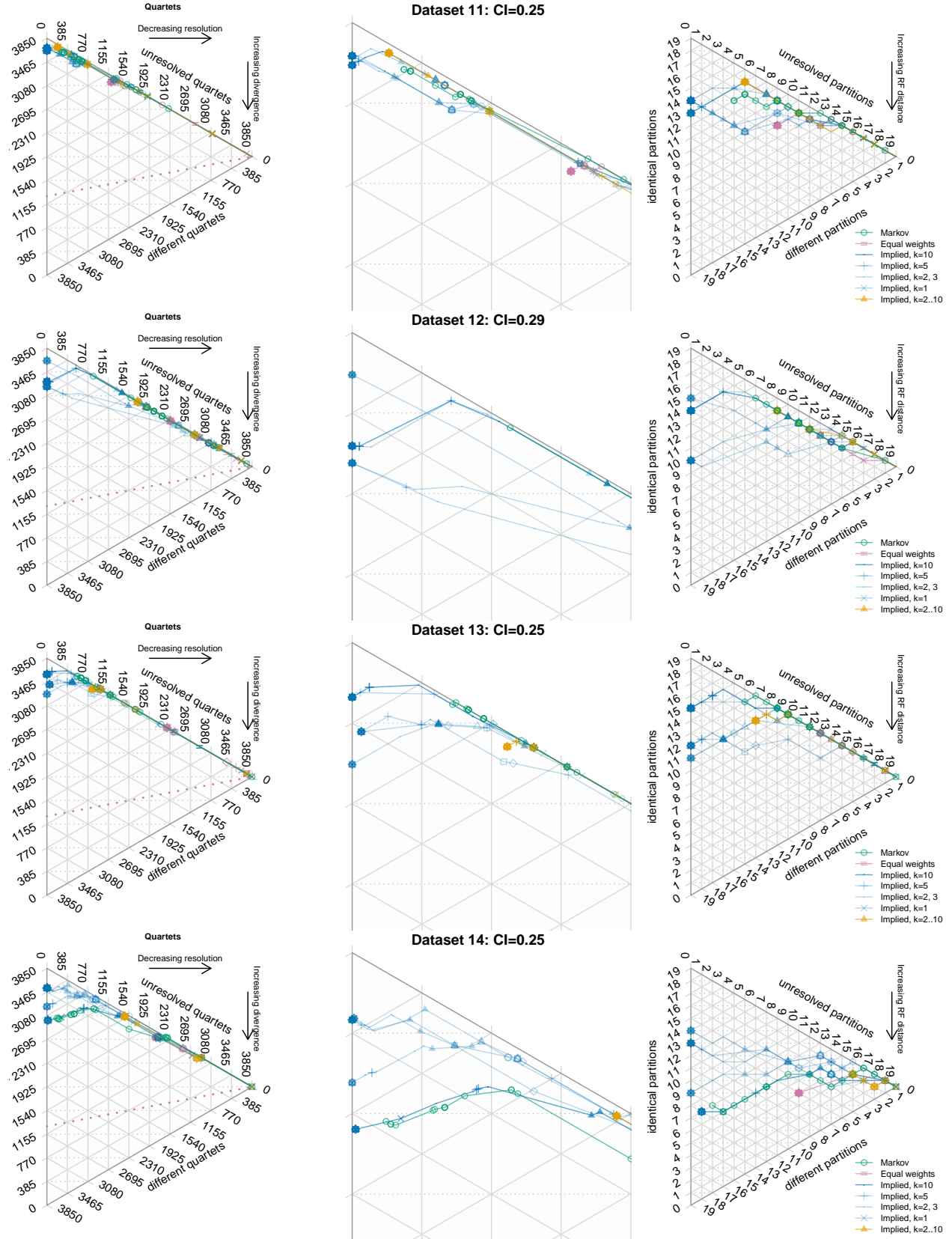
**Dataset 9: CI=0.24**



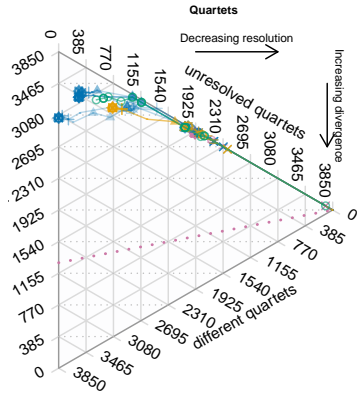
**Dataset 10: CI=0.29**



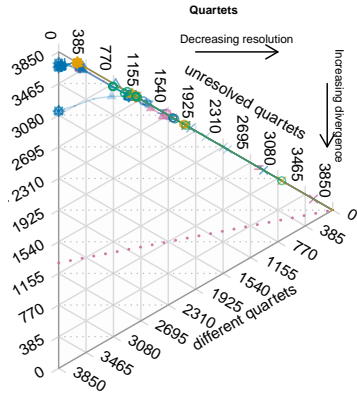
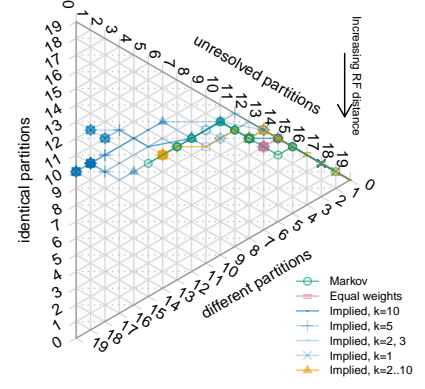
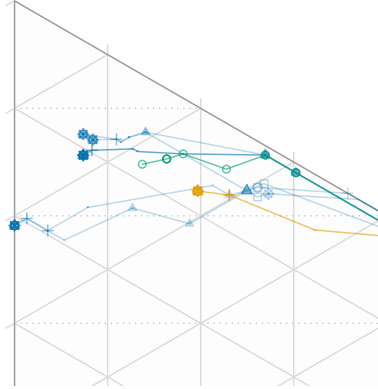
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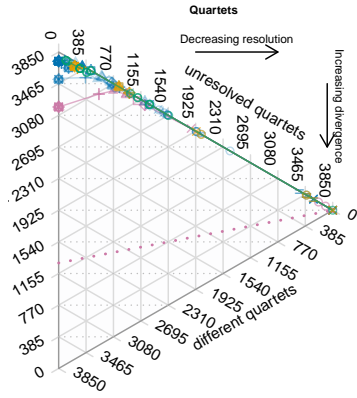
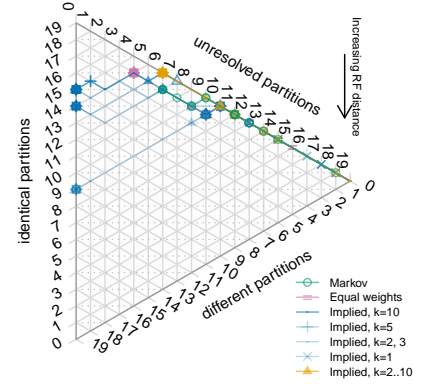
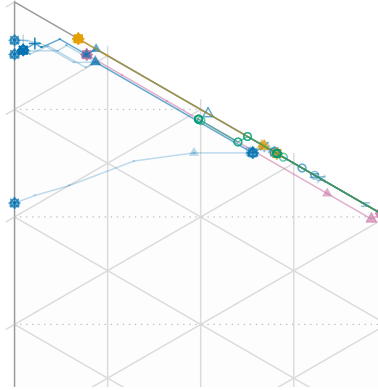




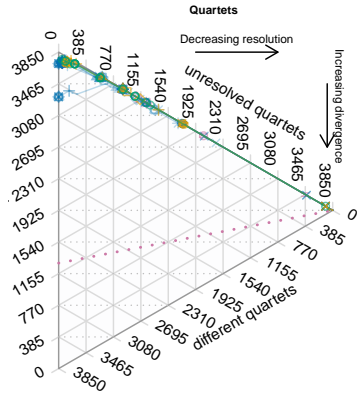
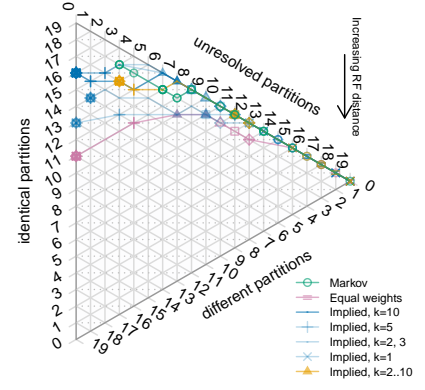
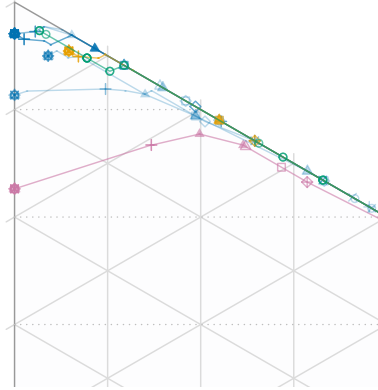
Dataset 15: CI=0.25



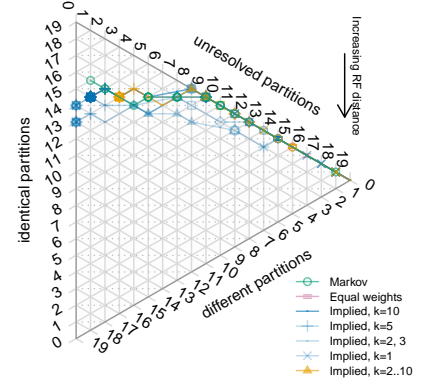
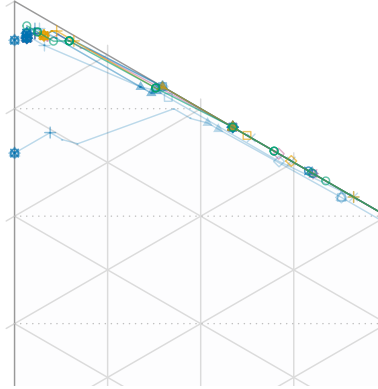
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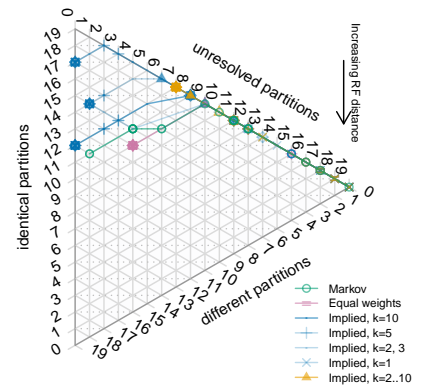
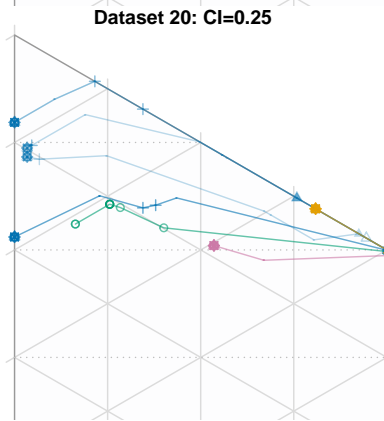
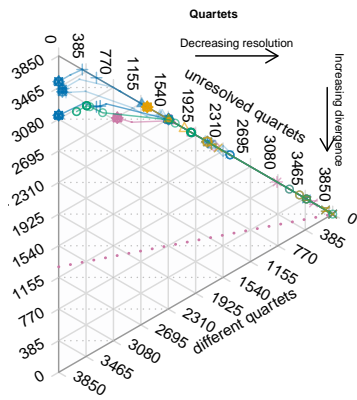
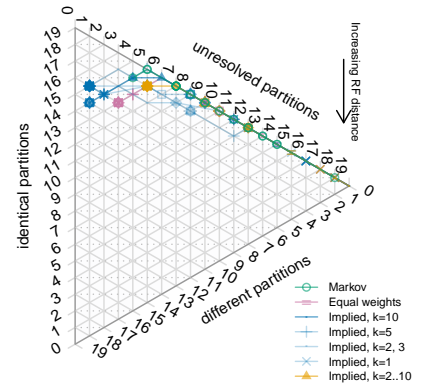
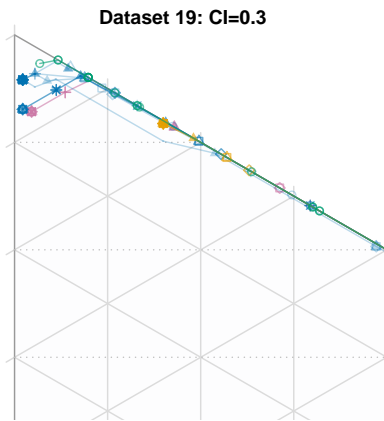
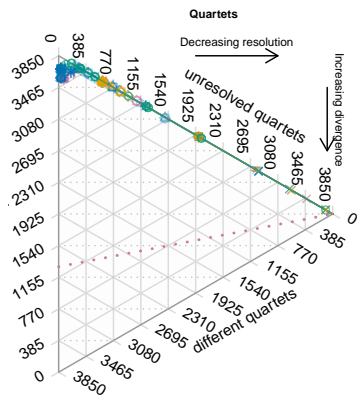


Dataset 17: CI=0.27

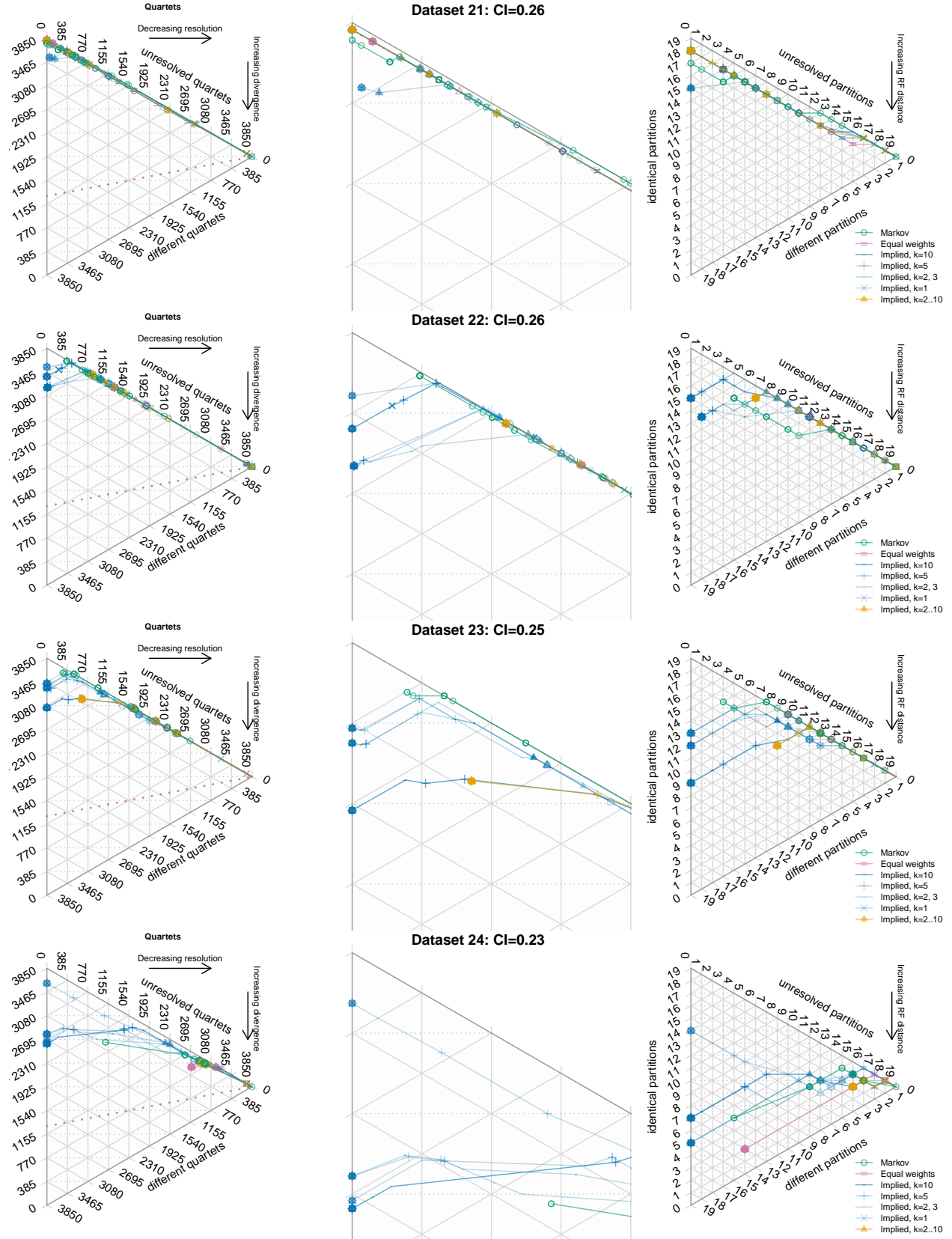


Dataset 18: CI=0.28

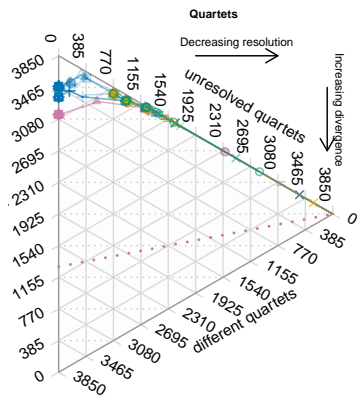




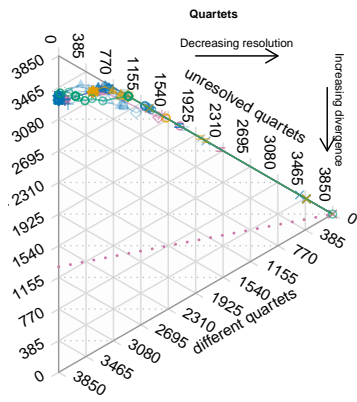
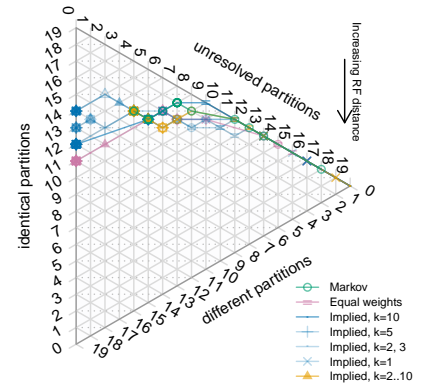
## 0.4 Trees 21–30



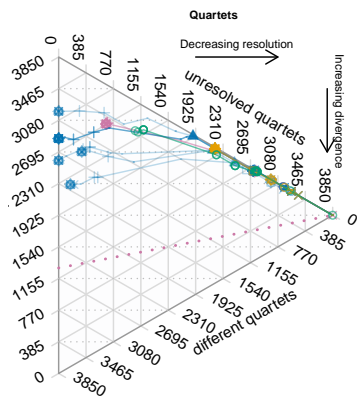
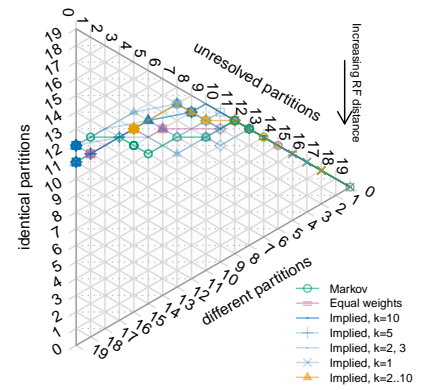




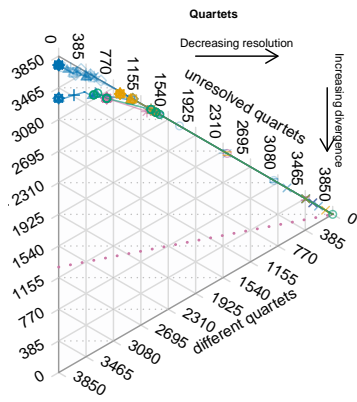
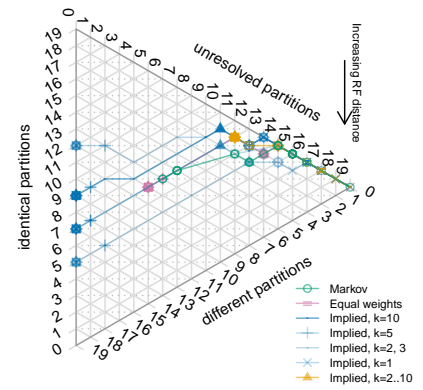
Dataset 25: CI=0.28



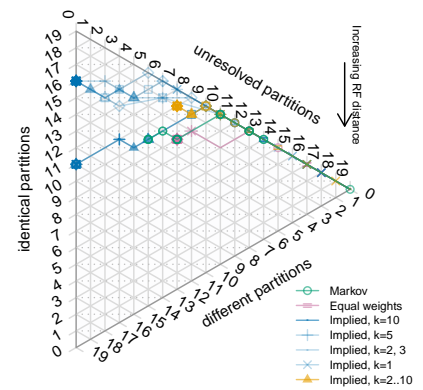
Dataset 26: CI=0.27

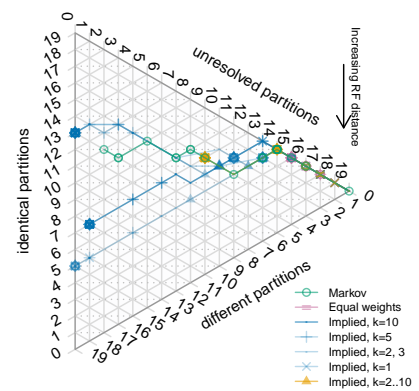
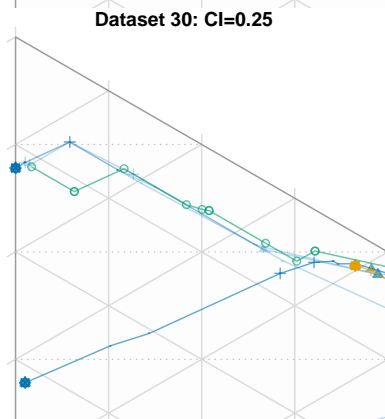
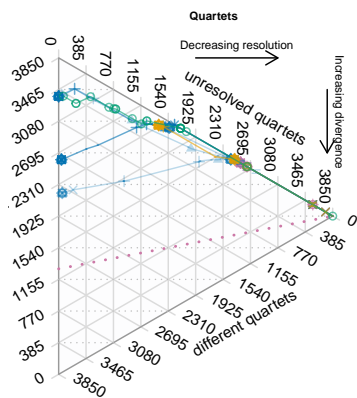
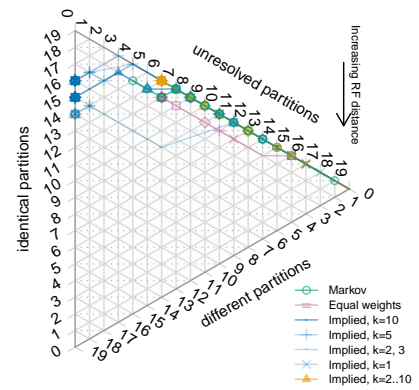
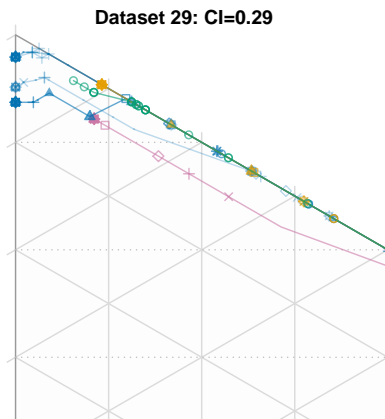
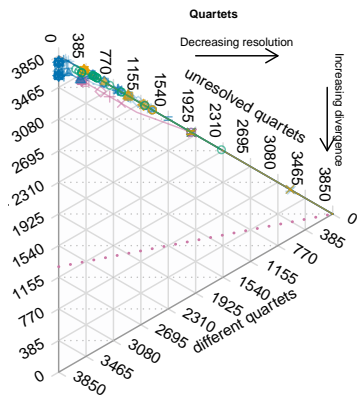


Dataset 27: CI=0.26

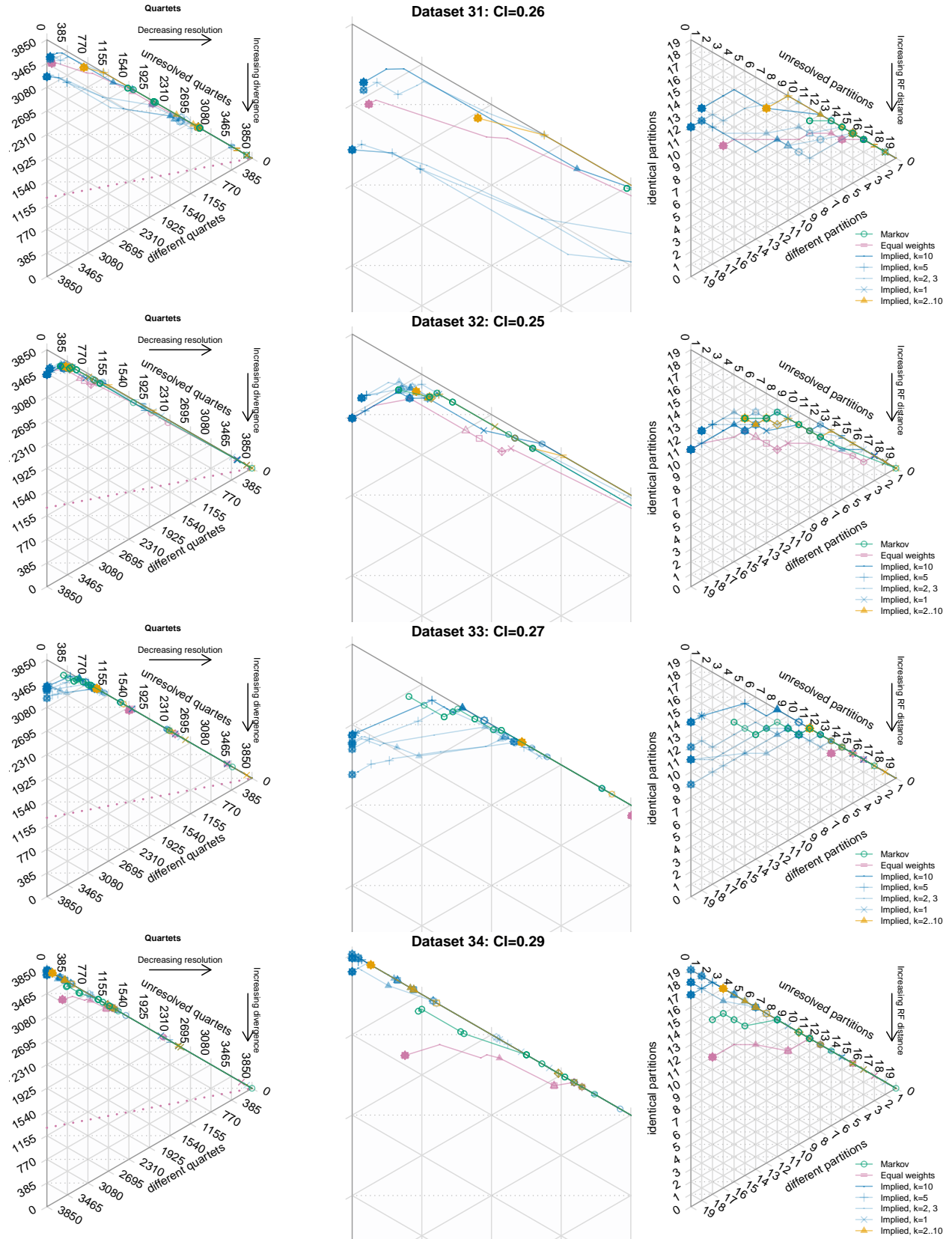


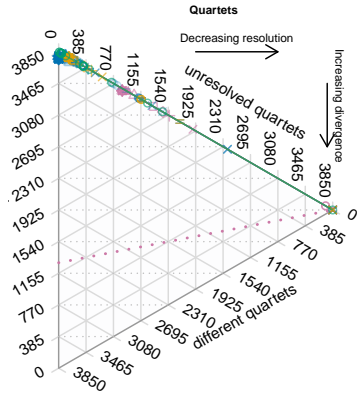
Dataset 28: CI=0.27



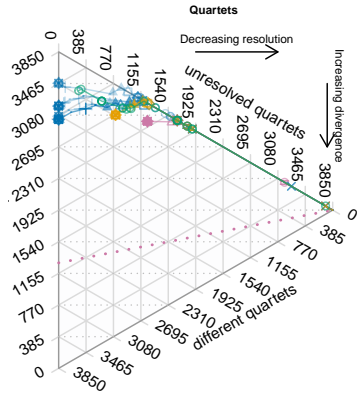
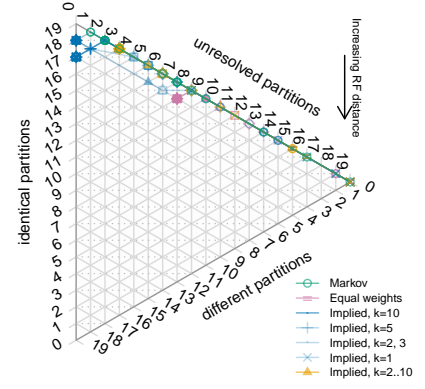


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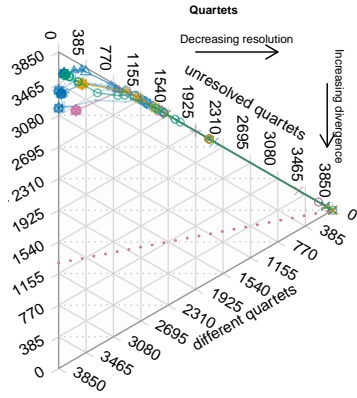
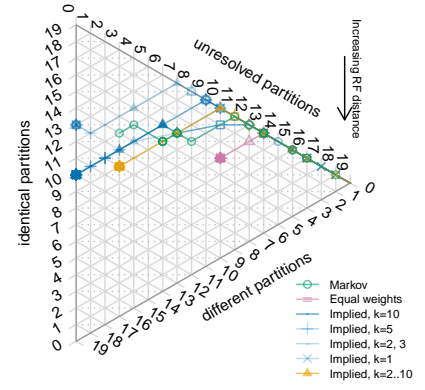




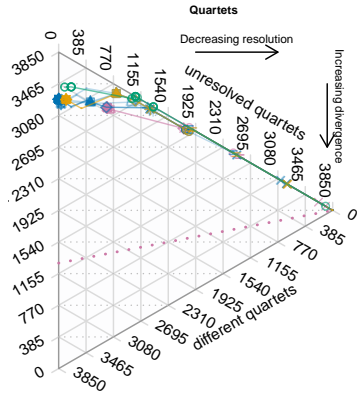
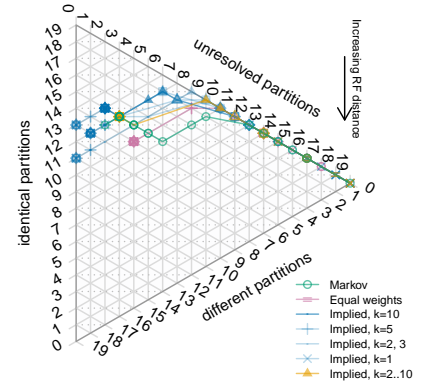
Dataset 35: CI=0.25



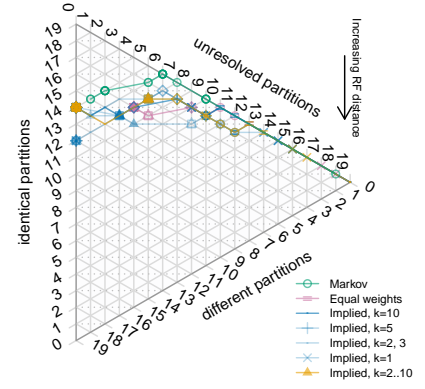
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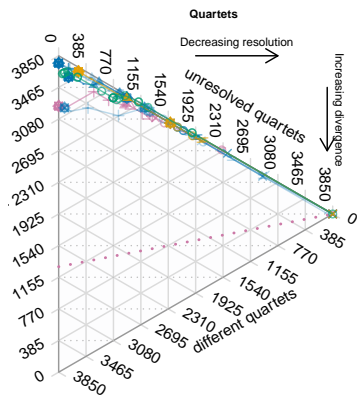


Dataset 37: CI=0.26

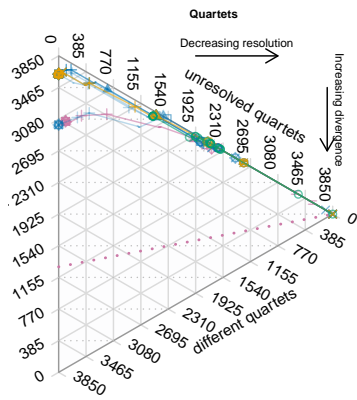
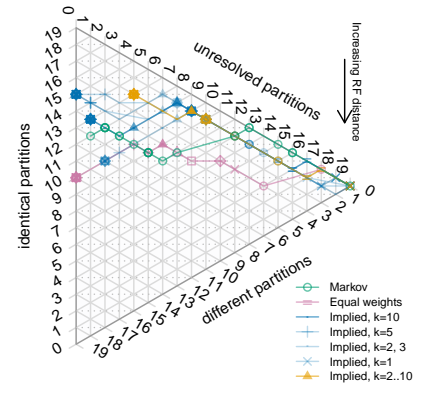
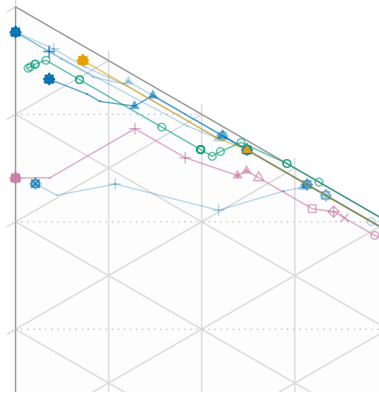


Dataset 38: CI=0.29

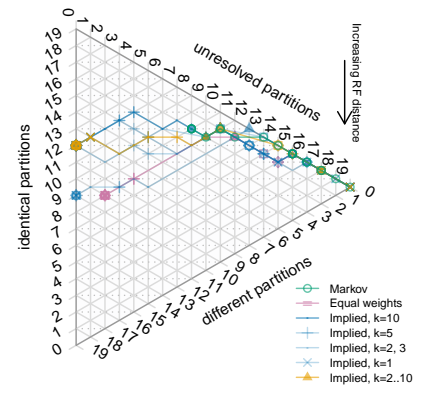
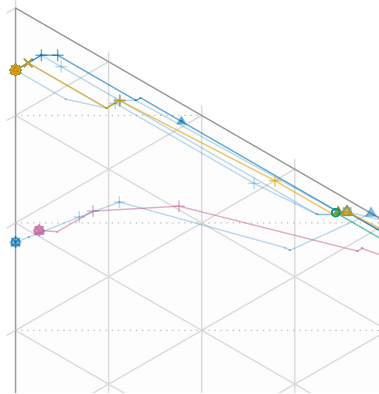




Dataset 39: CI=0.25

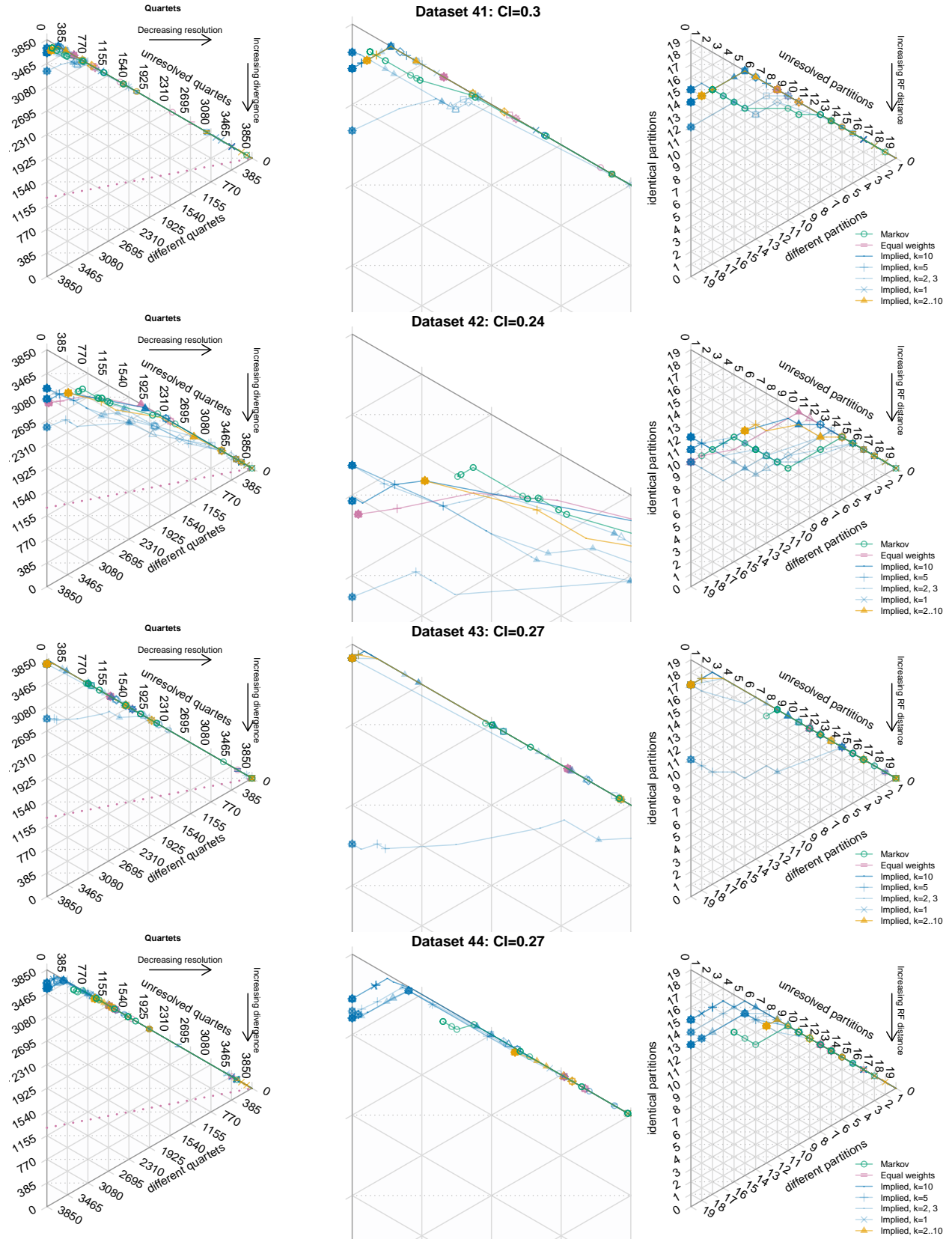


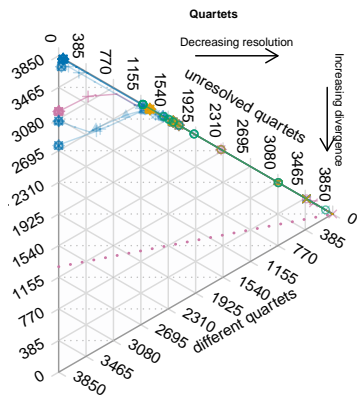
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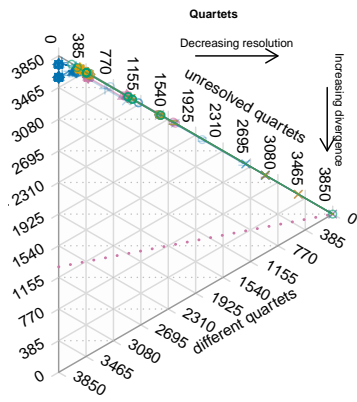
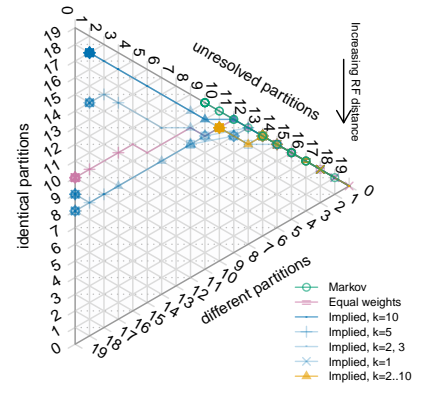
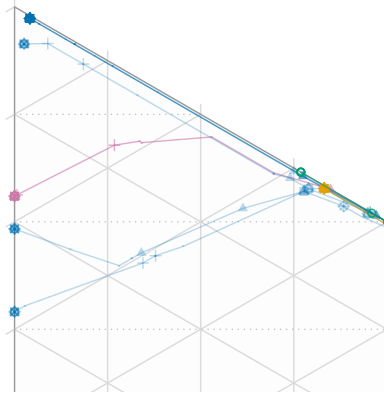


## 0.6 Trees 41–50

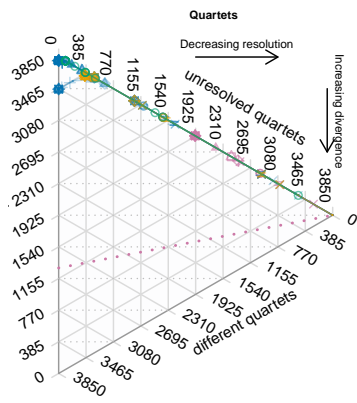
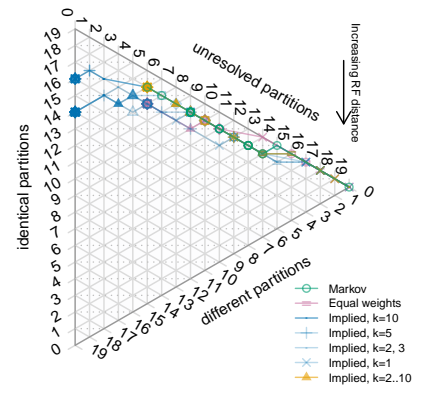
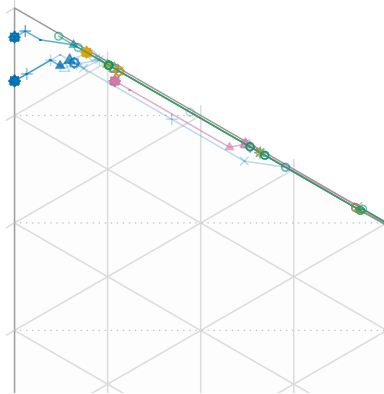




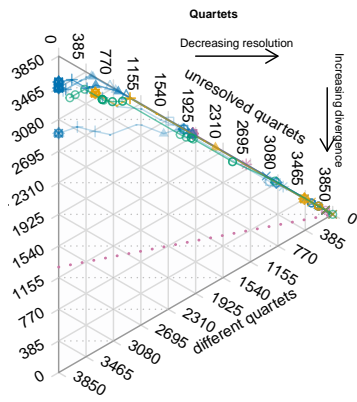
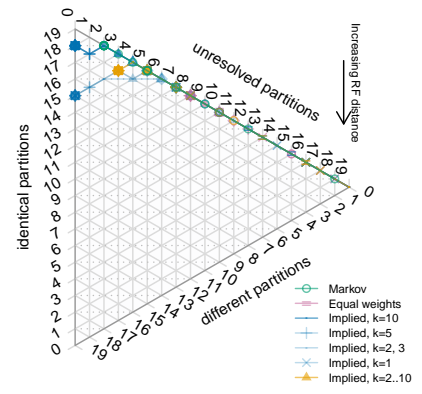
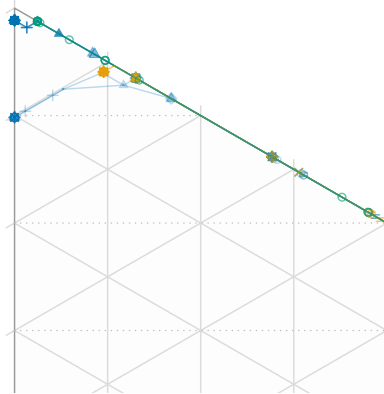
Dataset 45: CI=0.27



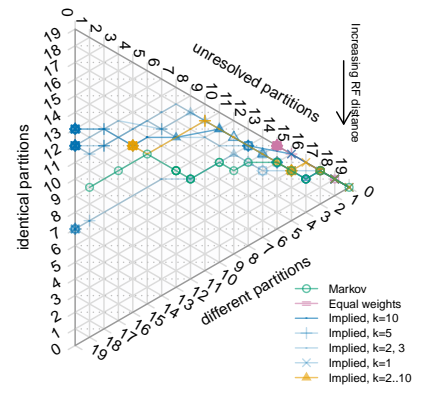
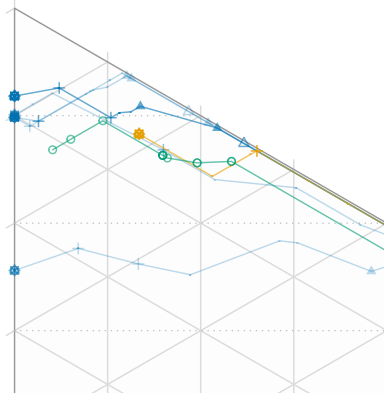
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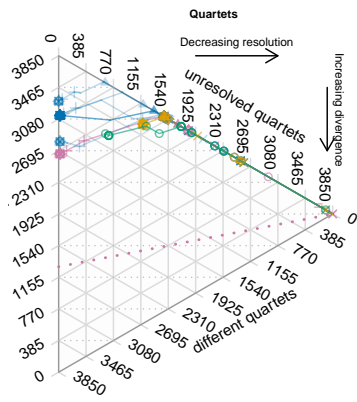


Dataset 47: CI=0.29

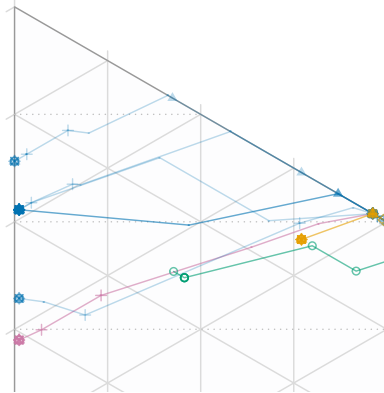


Dataset 48: CI=0.27

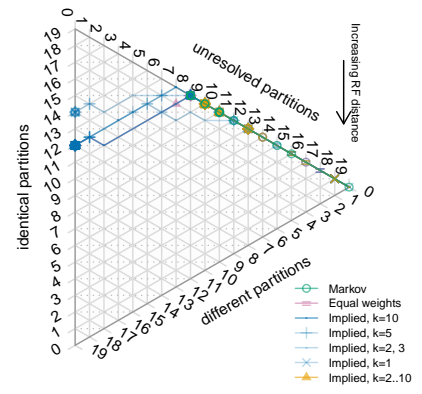
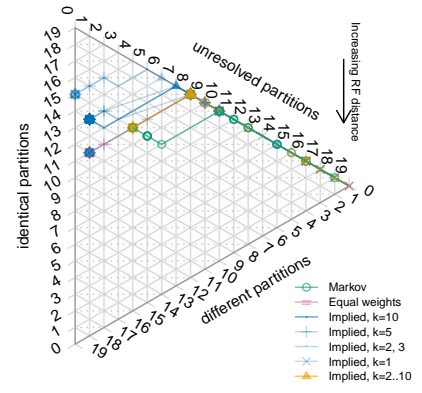
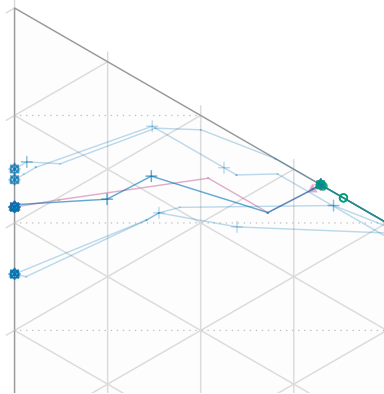




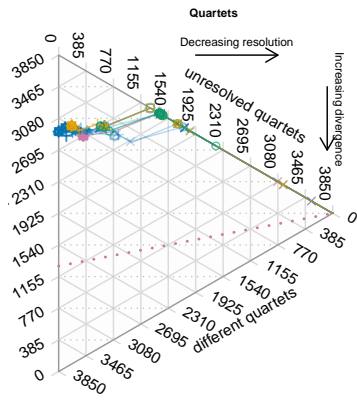
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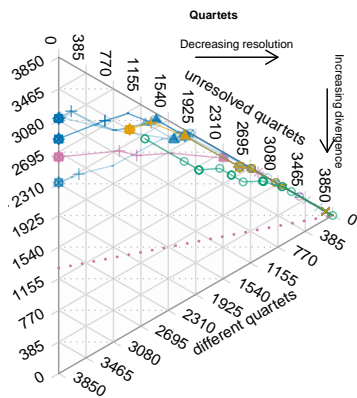
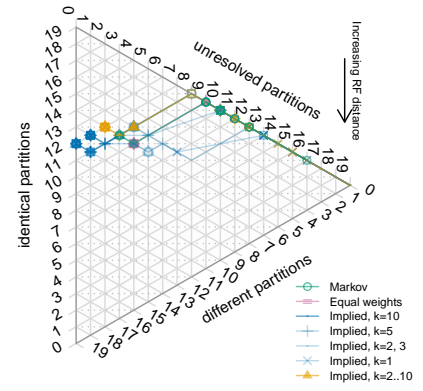
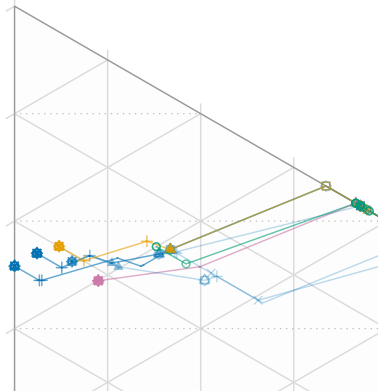
Dataset 50: CI=0.25



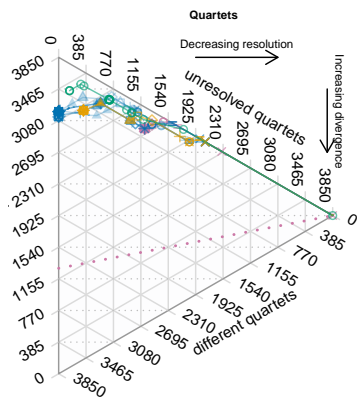
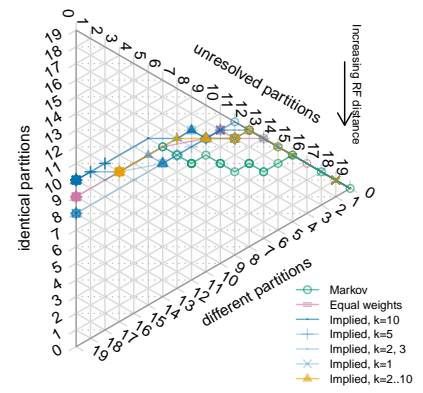
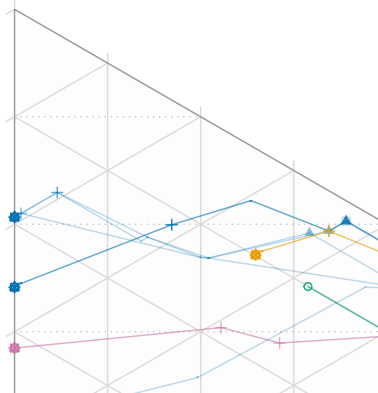
## 0.7 Trees 51–60



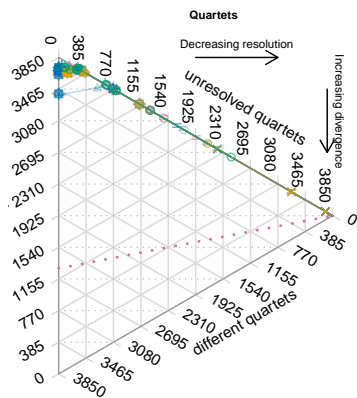
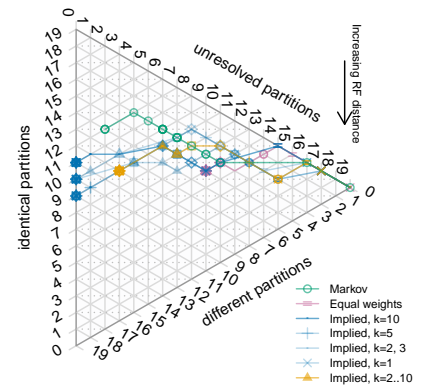
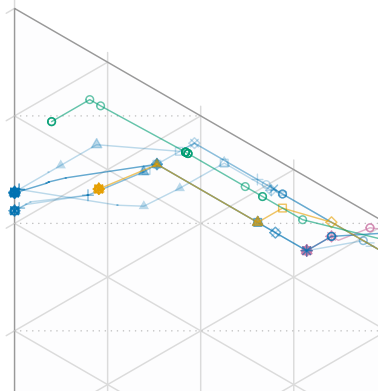
**Dataset 51: CI=0.3**



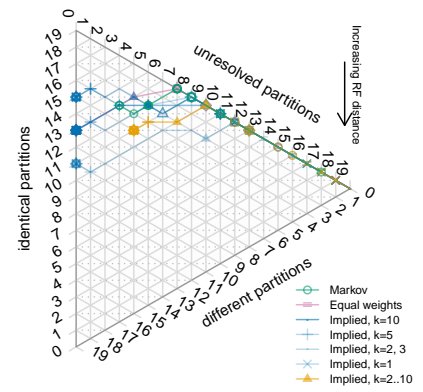
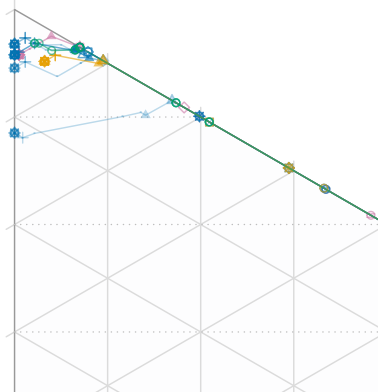
**Dataset 52: CI=0.25**



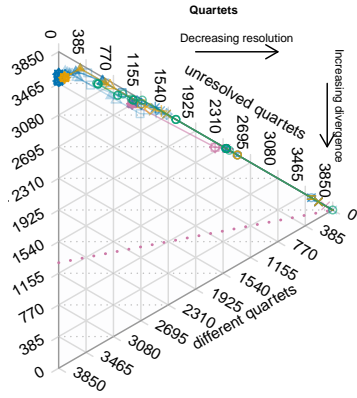
**Dataset 53: CI=0.25**



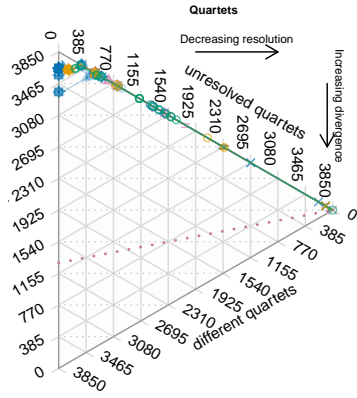
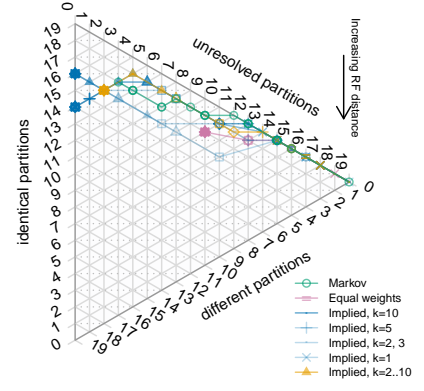
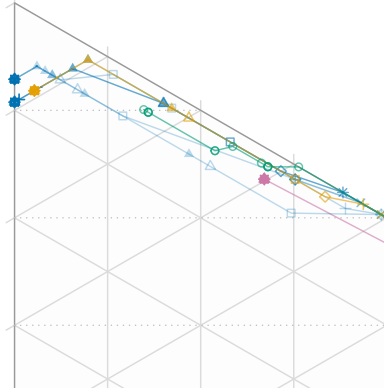
**Dataset 54: CI=0.28**



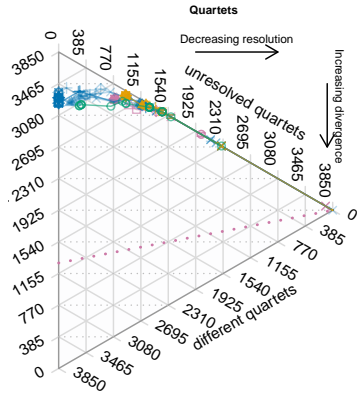
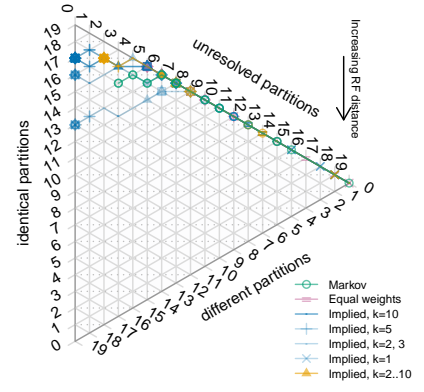
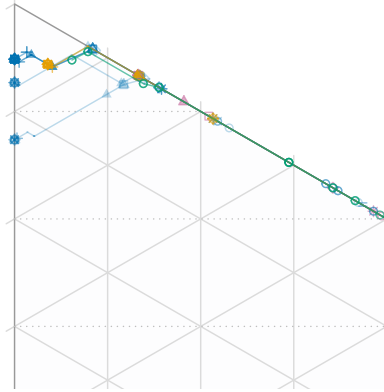




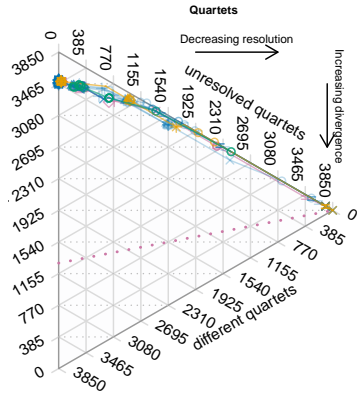
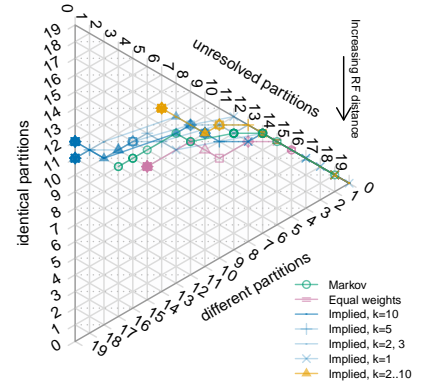
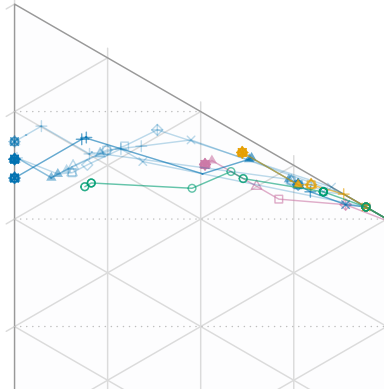
Dataset 55: CI=0.28



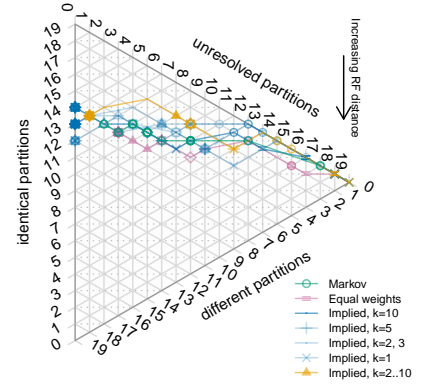
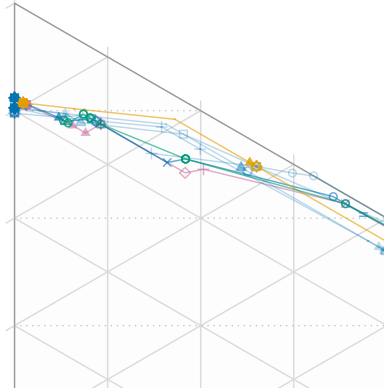
Dataset 56: CI=0.31



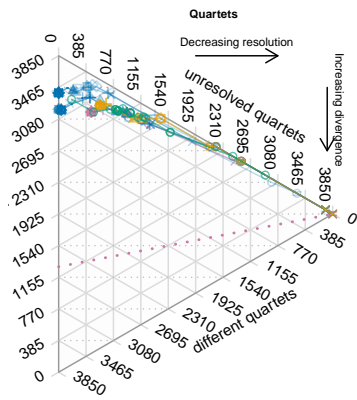
Dataset 57: CI=0.25



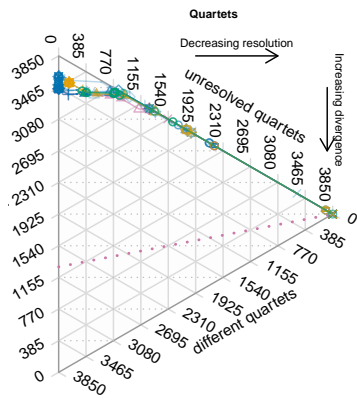
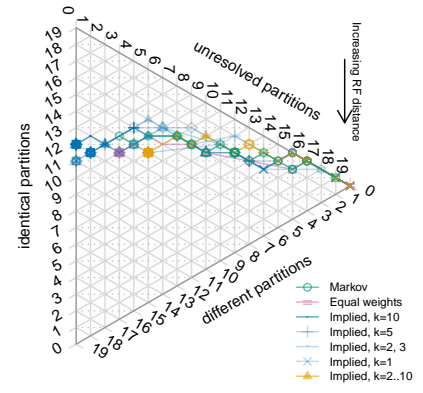
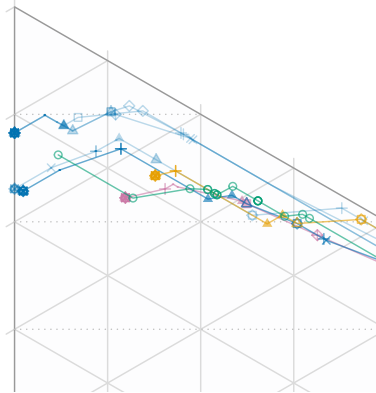
Dataset 58: CI=0.25



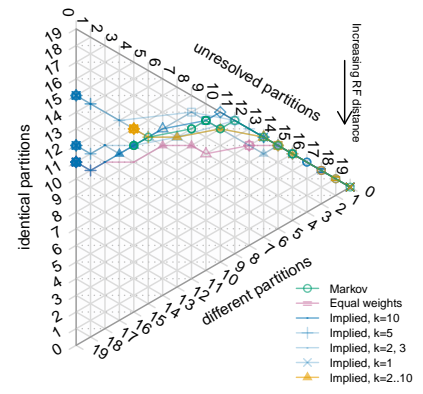
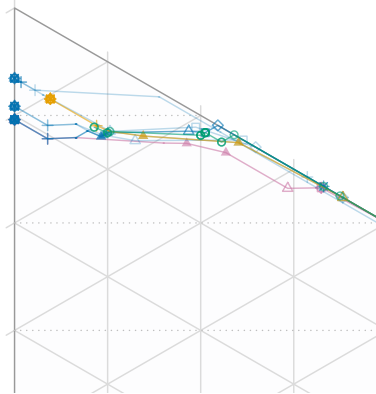




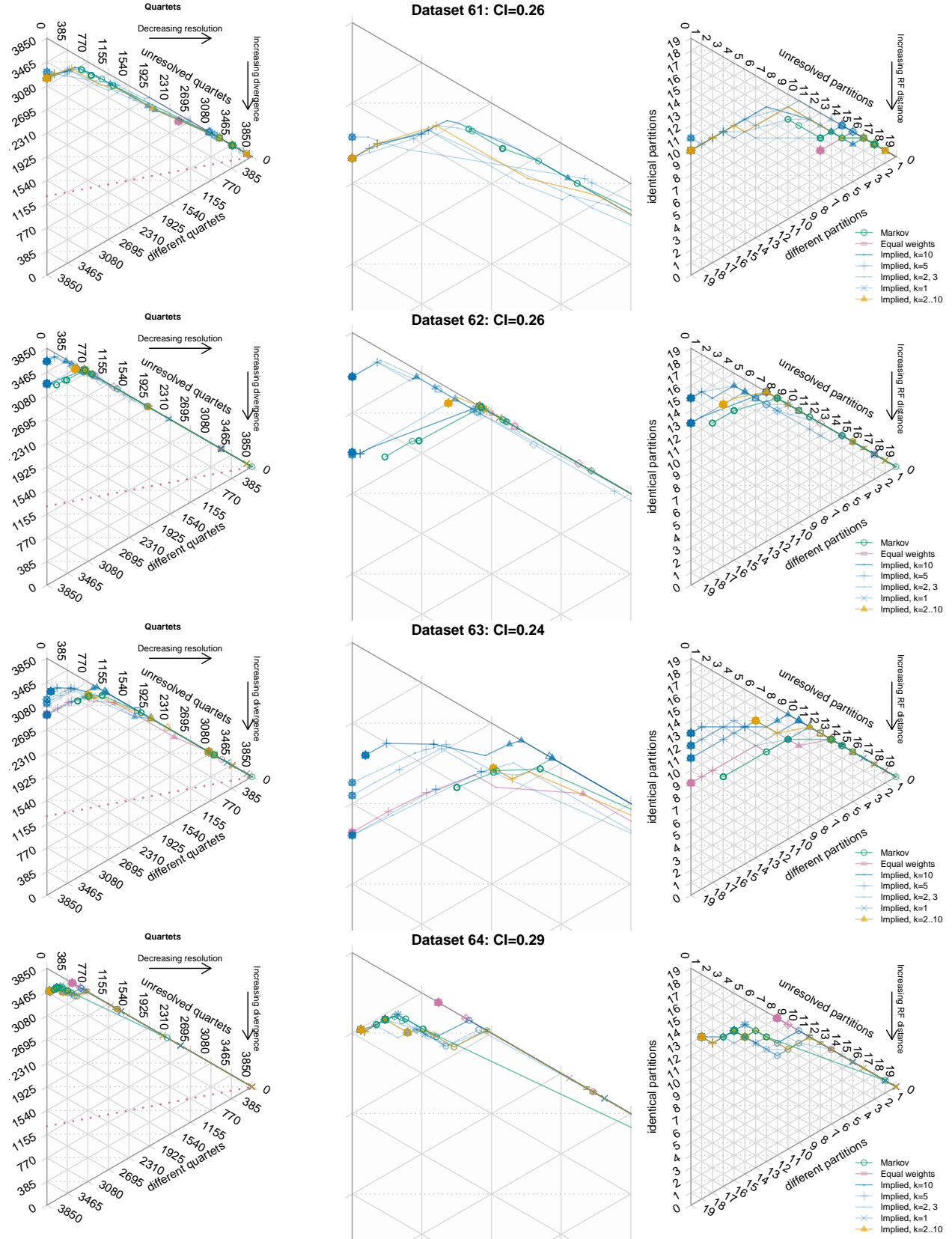
**Dataset 59: CI=0.26**

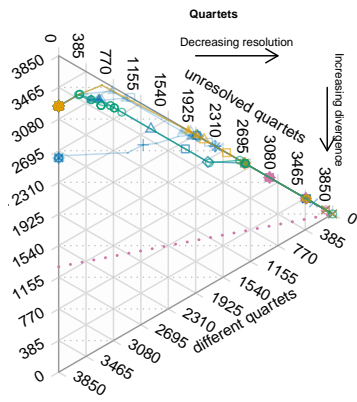


**Dataset 60: CI=0.24**

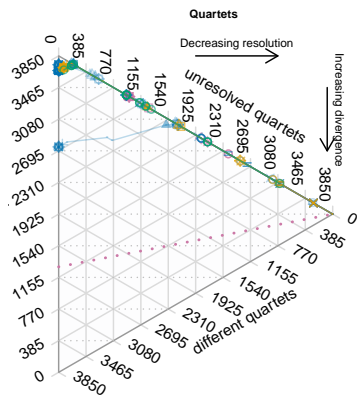
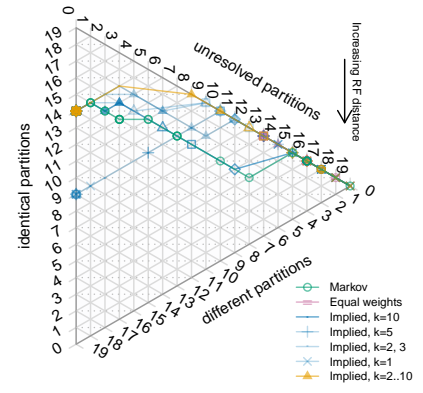
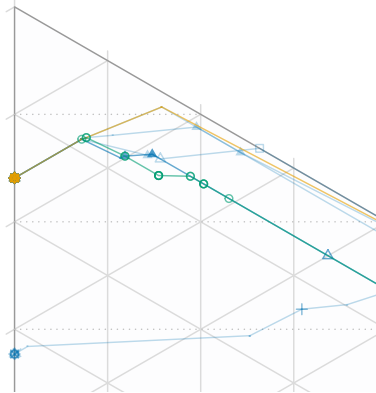


## 0.8 Trees 61–70

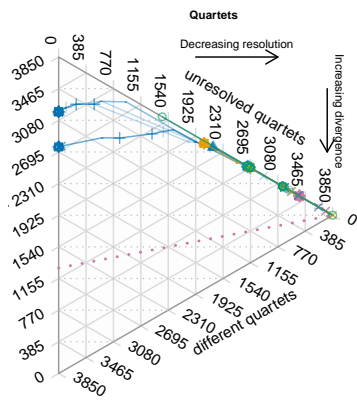
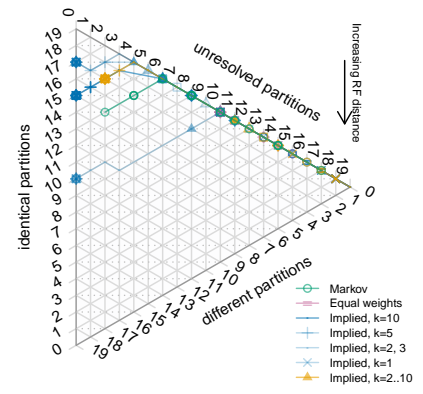
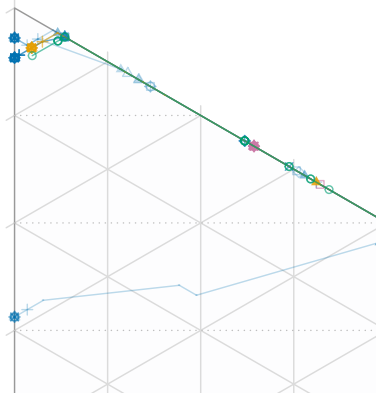




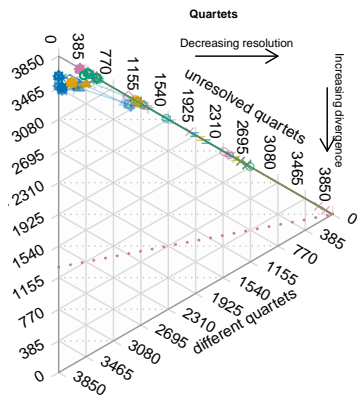
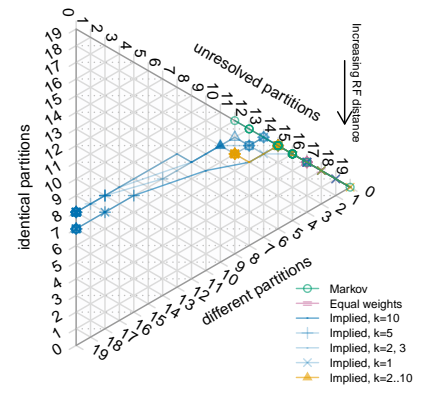
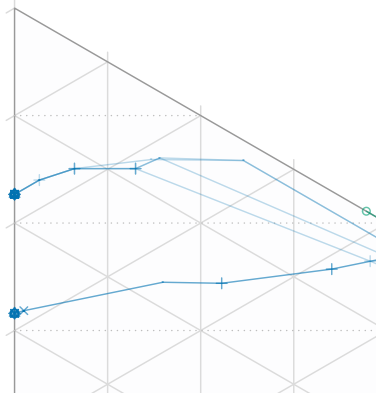
Dataset 65: CI=0.25



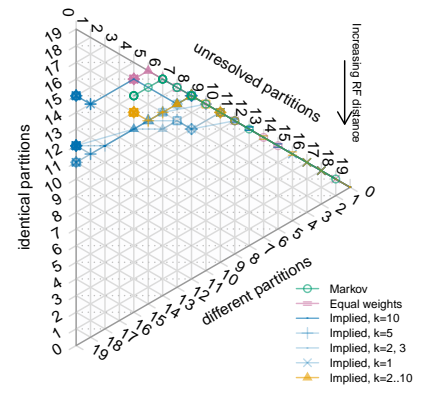
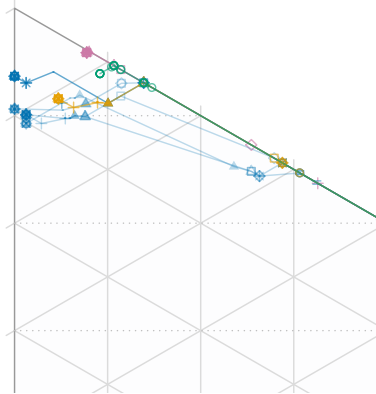
Dataset 66: CI=0.27

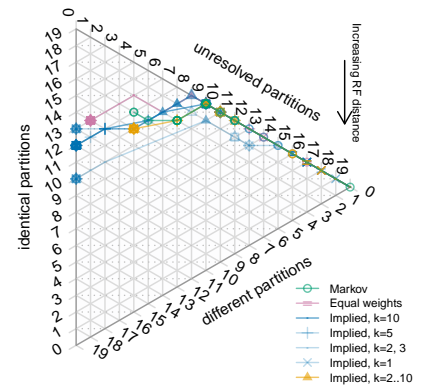
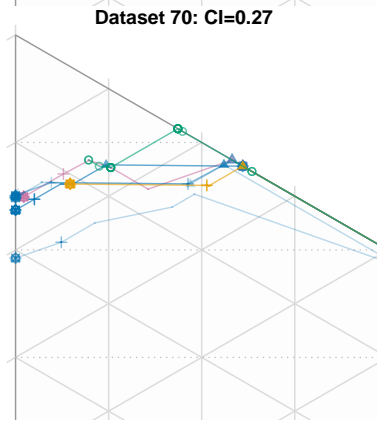
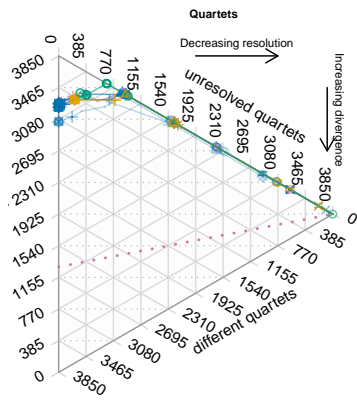
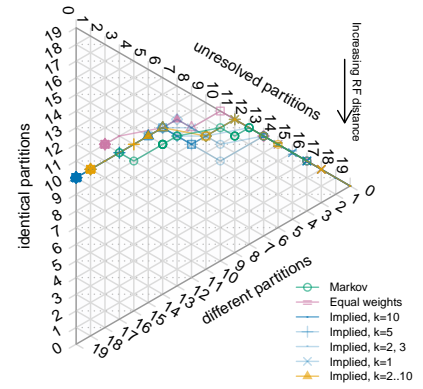
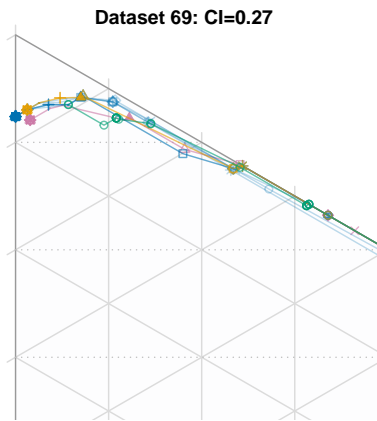
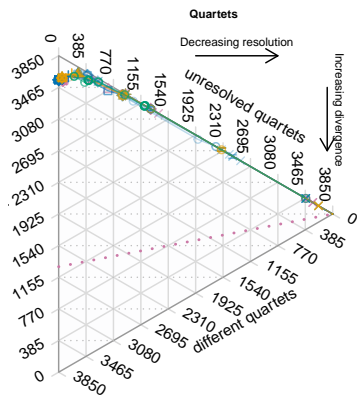


Dataset 67: CI=0.26

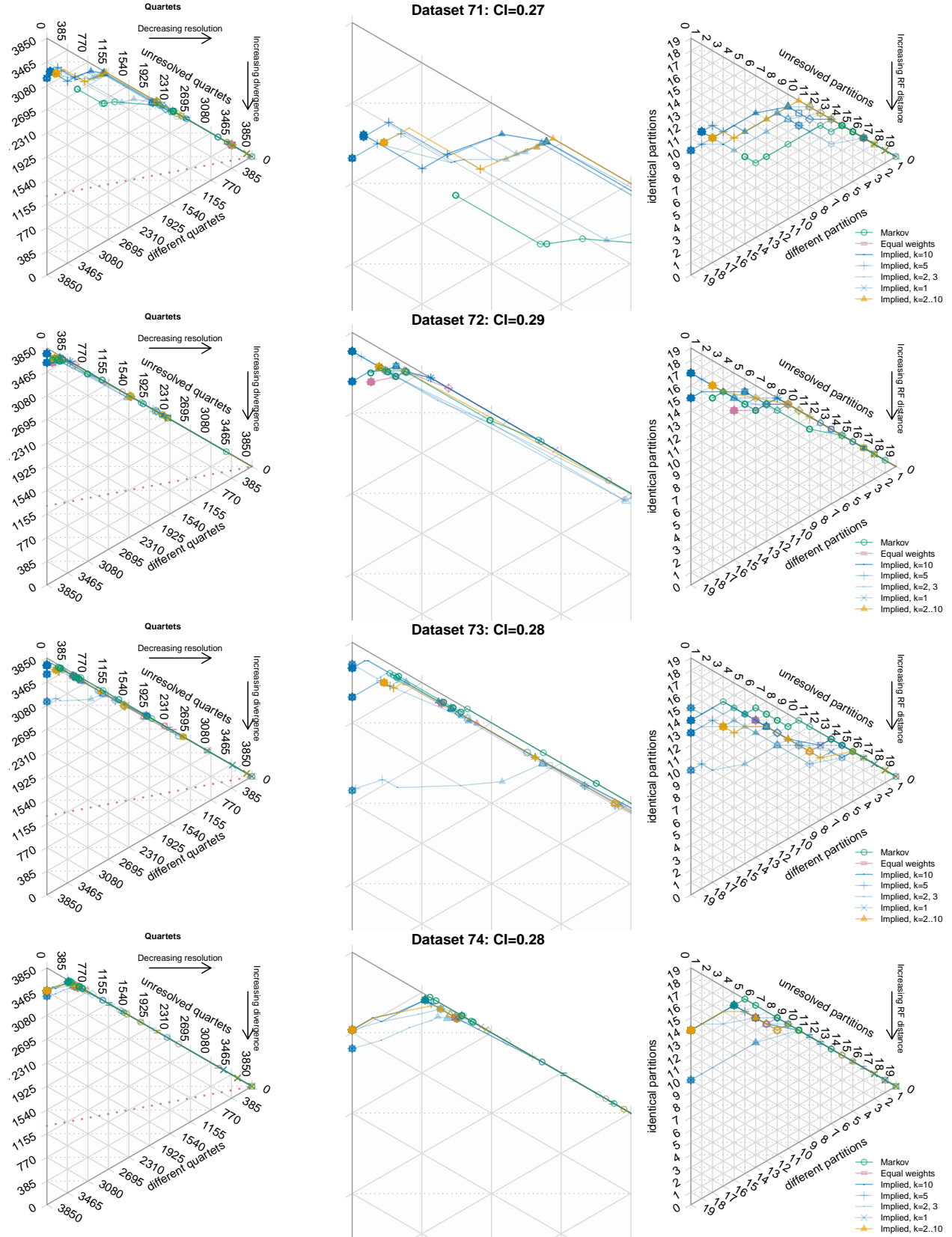


Dataset 68: CI=0.31

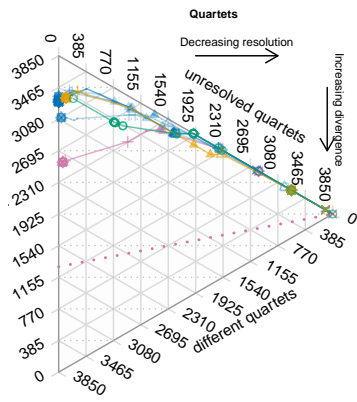




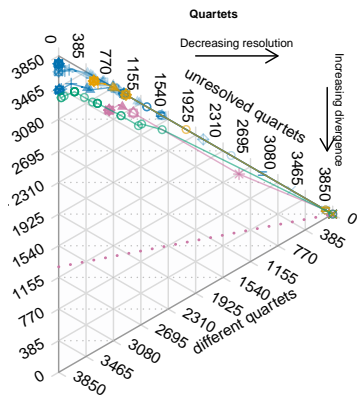
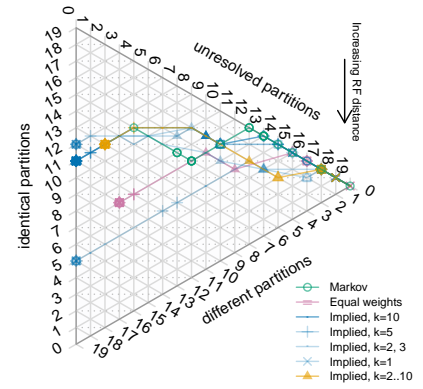
## 0.9 Trees 71–80



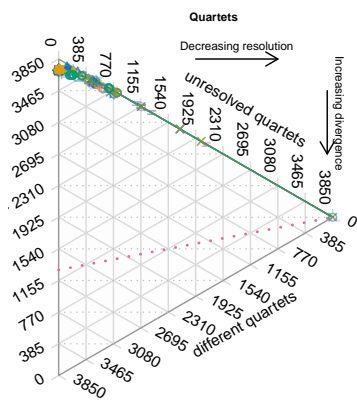
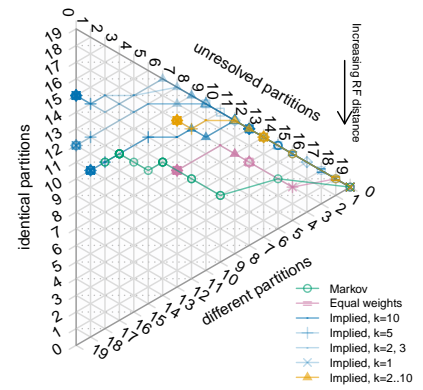




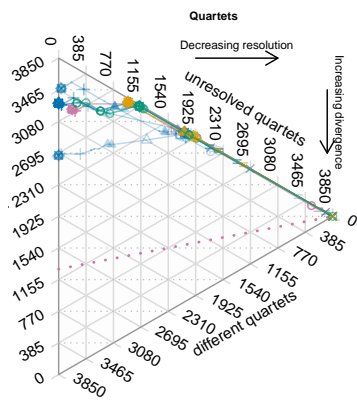
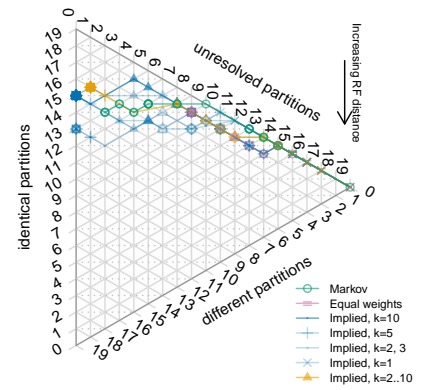
Dataset 75: CI=0.24



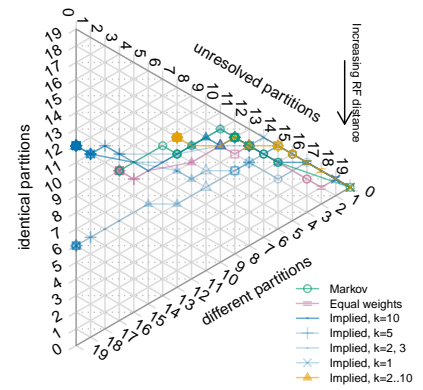
Dataset 76: CI=0.26

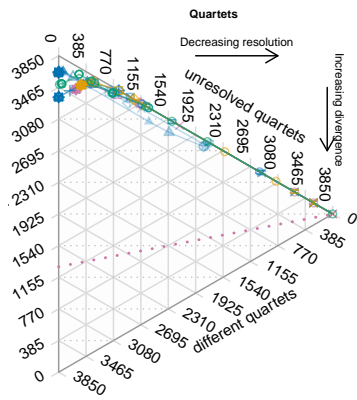


Dataset 77: CI=0.28

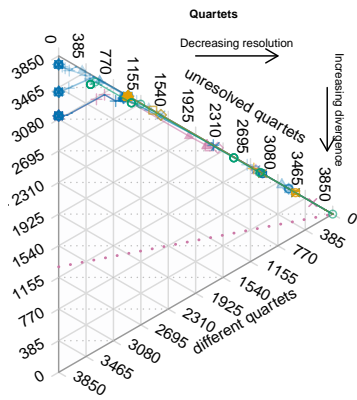
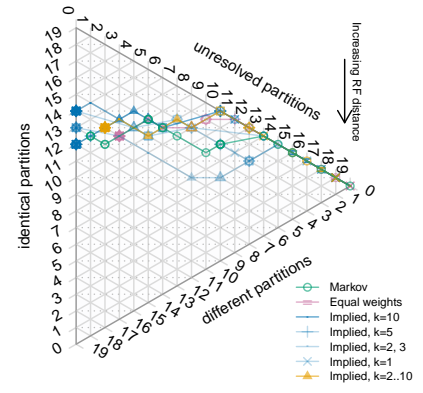
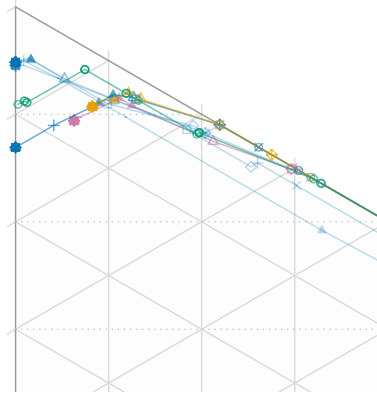


Dataset 78: CI=0.24

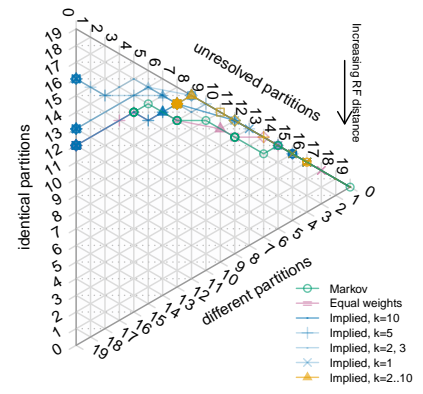
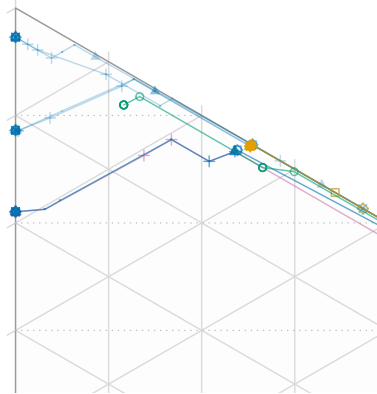




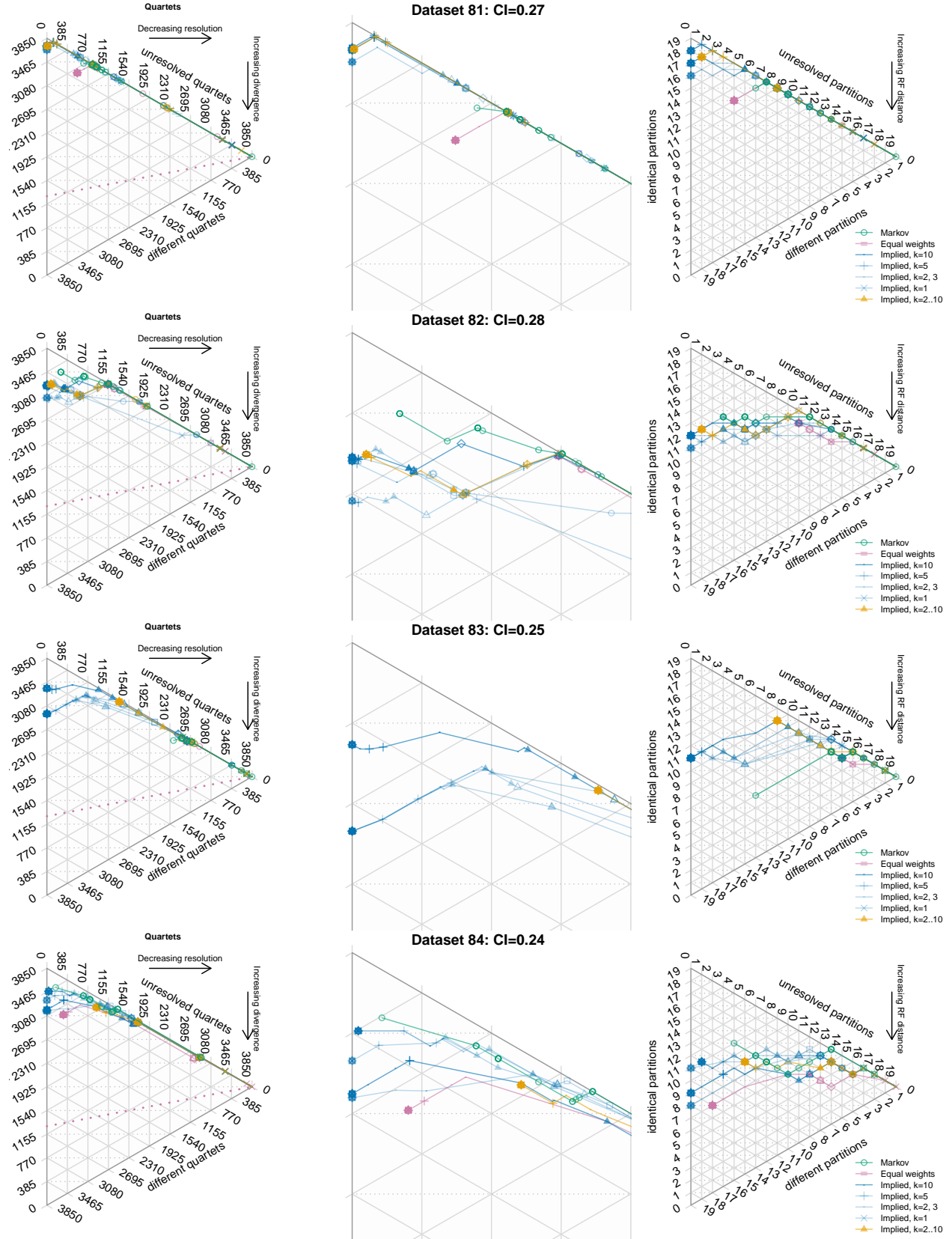
**Dataset 79: CI=0.24**

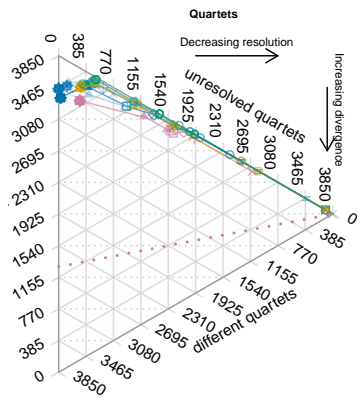


**Dataset 80: CI=0.27**

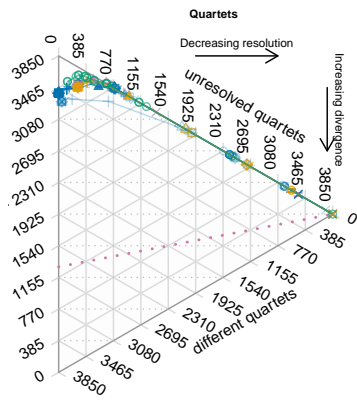
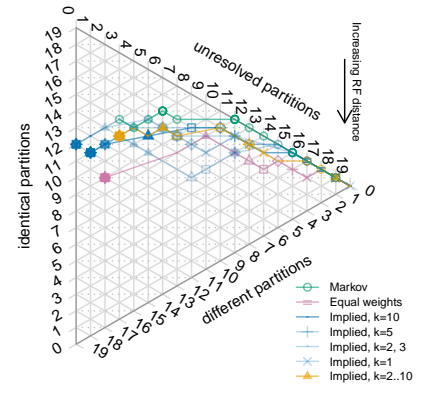
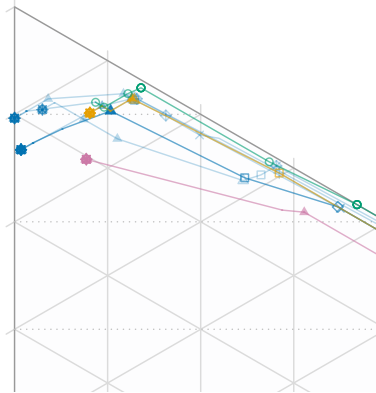


## 0.10 Trees 81–90

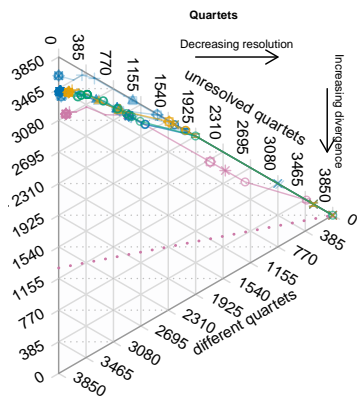
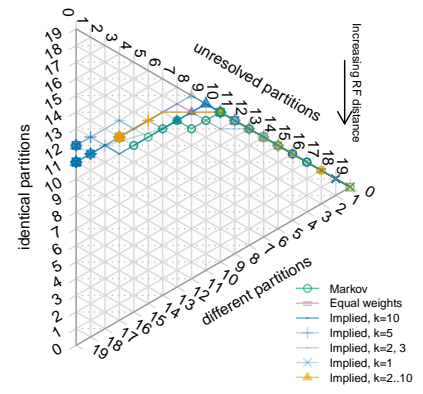
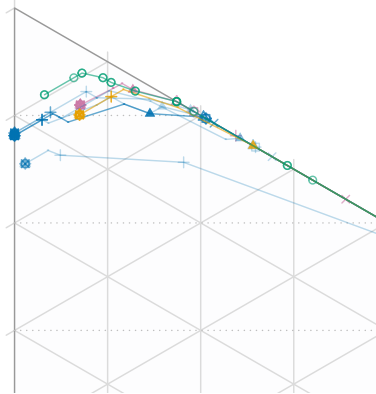




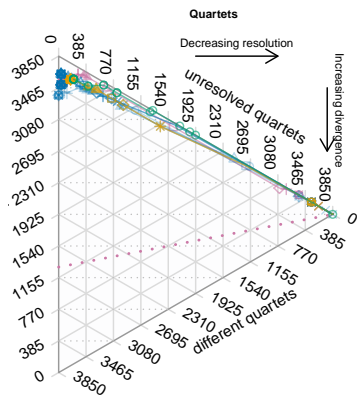
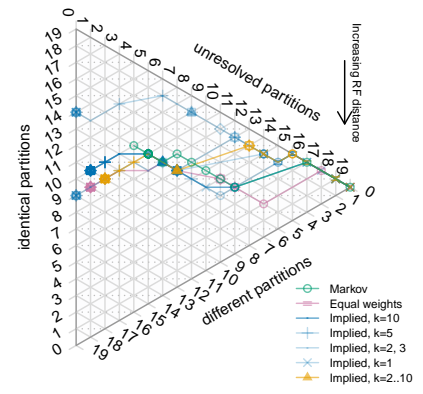
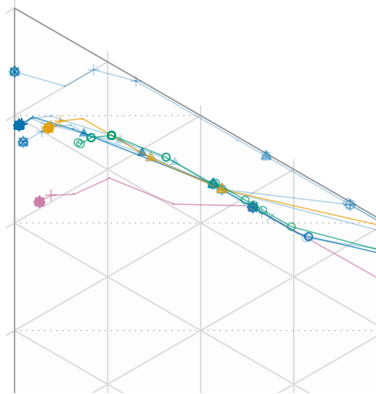
Dataset 85: CI=0.27



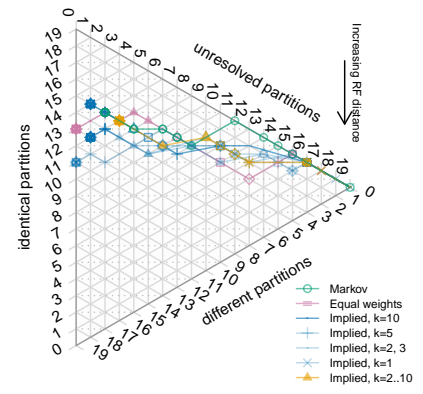
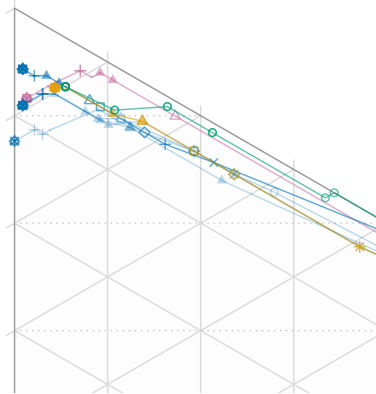
Dataset 86: CI=0.27

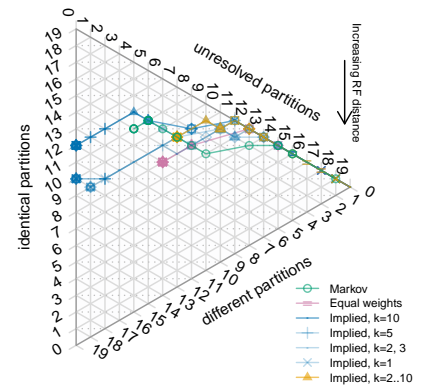
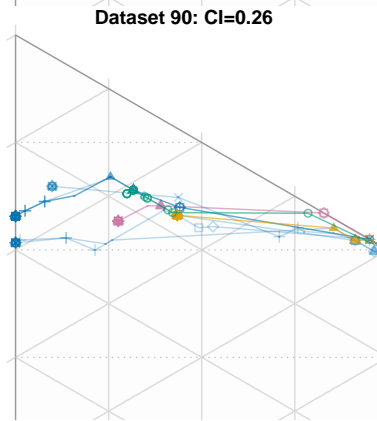
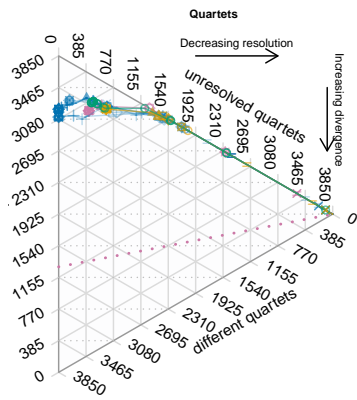
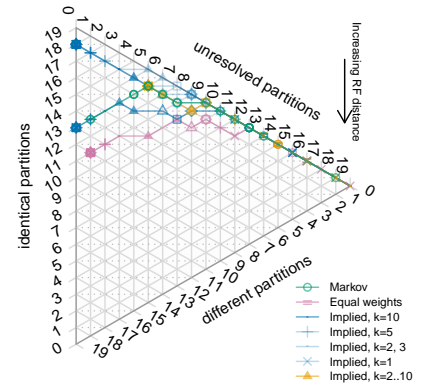
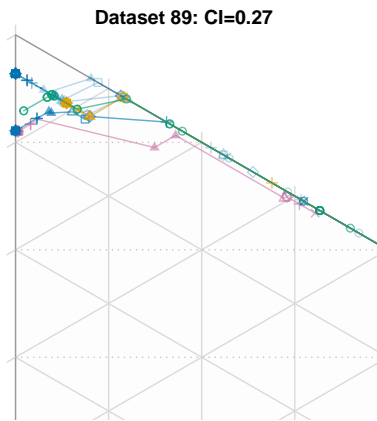
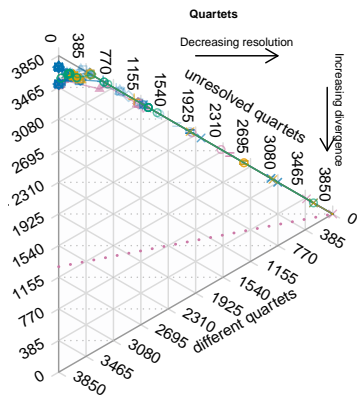


Dataset 87: CI=0.23



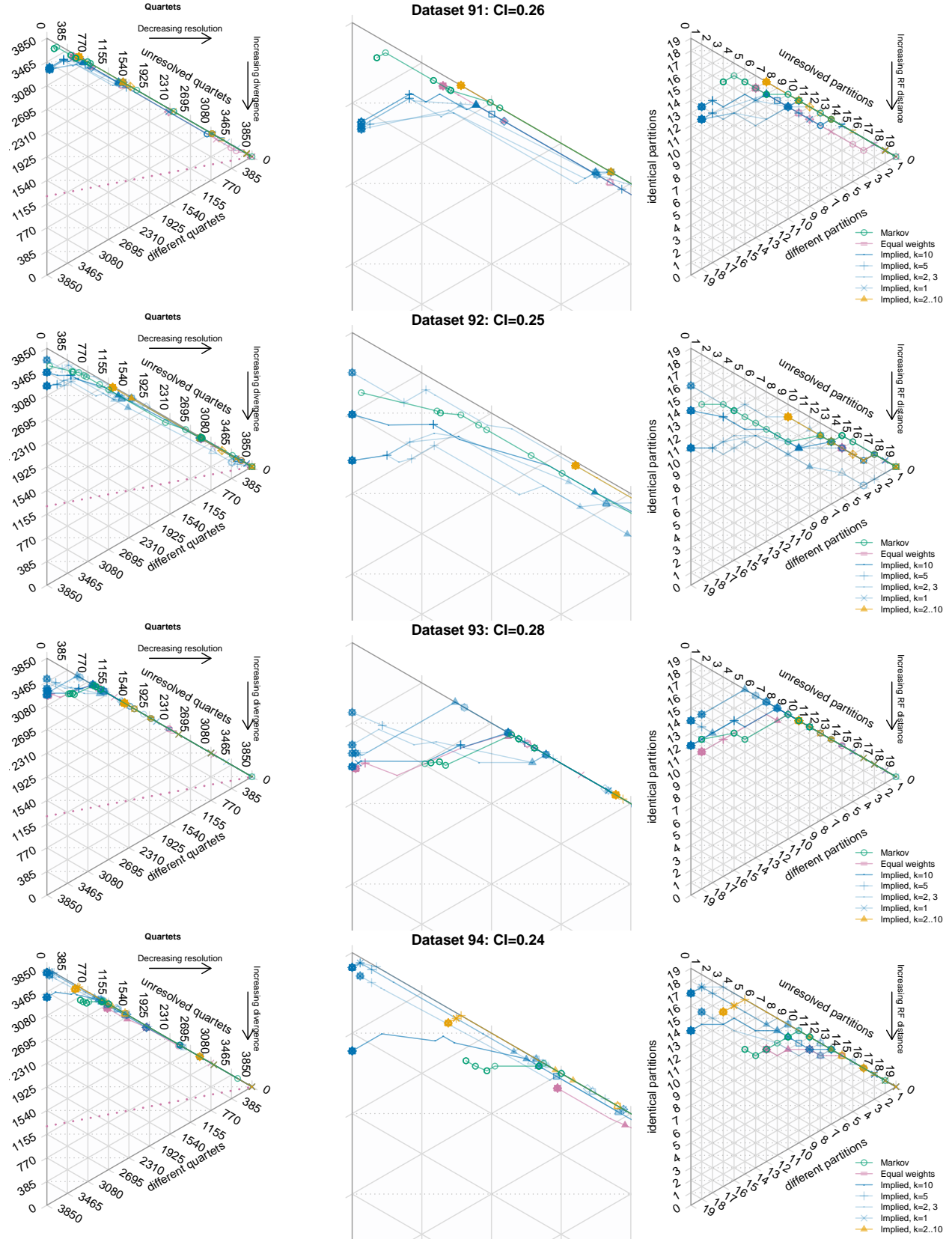
Dataset 88: CI=0.25

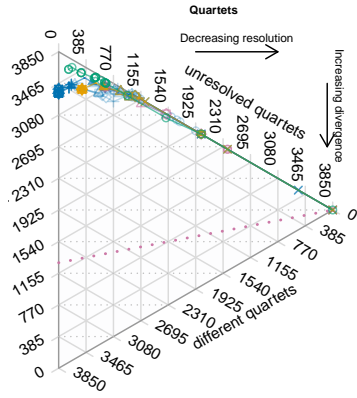




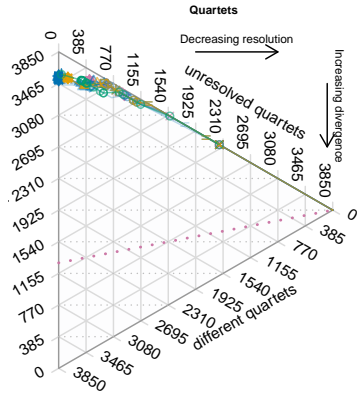
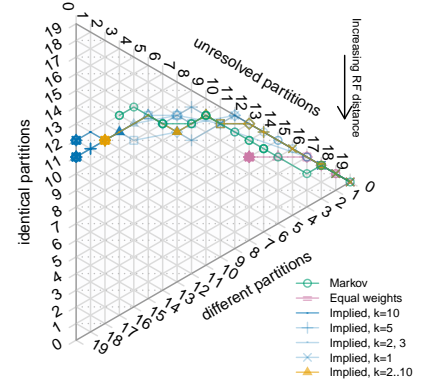


## 0.11 Trees 91–100

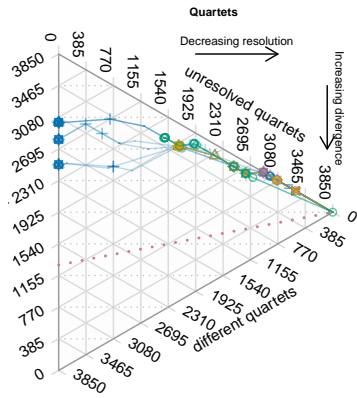
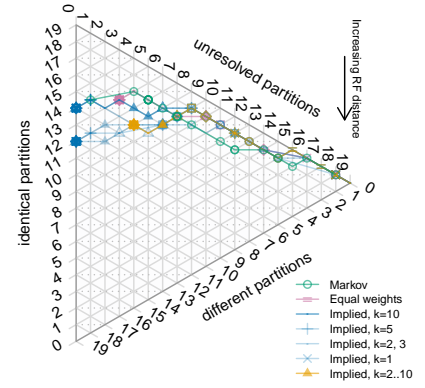




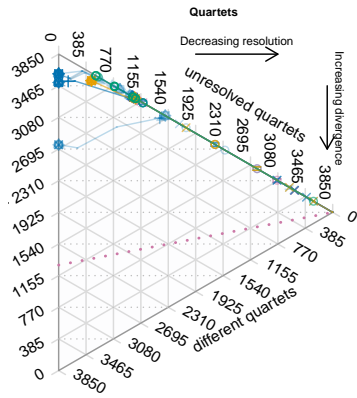
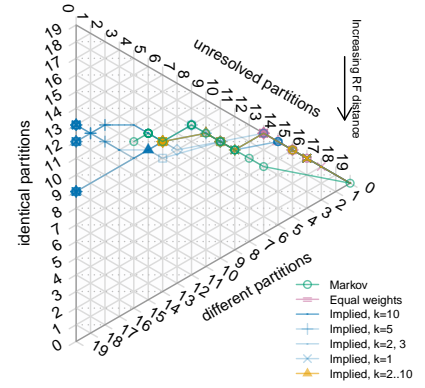
Dataset 95: CI=0.24



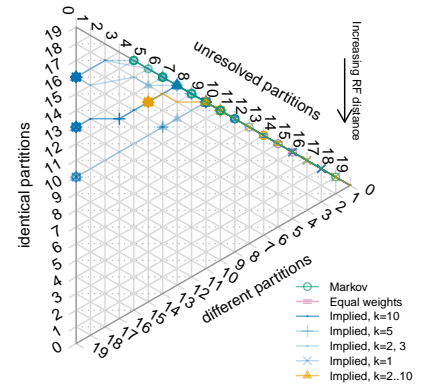
Dataset 96: CI=0.26

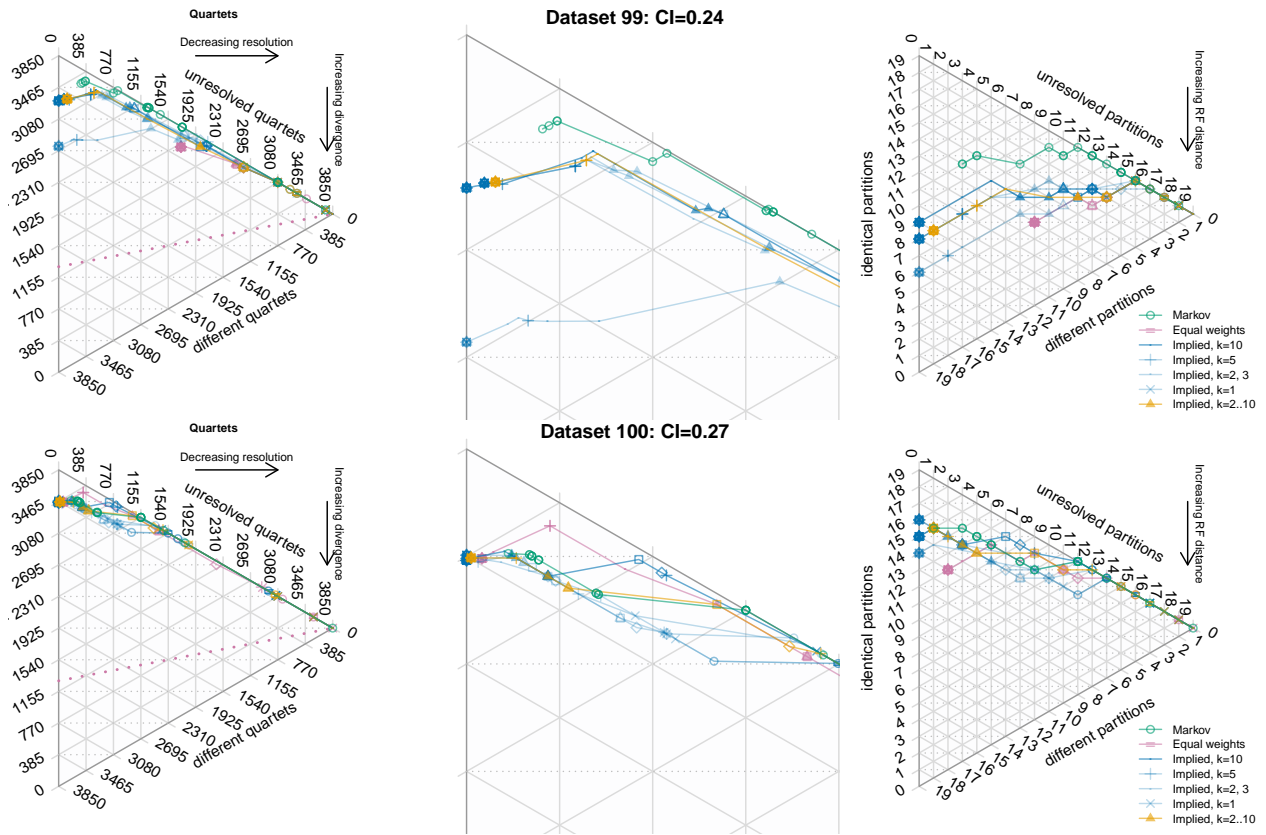


Dataset 97: CI=0.27



Dataset 98: CI=0.26





## References

1. Congreve CR, Lamsdell JC. 2016 Implied weighting and its utility in palaeontological datasets: a study using modelled phylogenetic matrices. *Palaeontology* **59**, 447–465. (doi:10.1111/pala.12236)
2. Smith MR. 2019 Bayesian and parsimony approaches reconstruct informative trees from simulated morphological datasets. *Biology Letters* **15**, 20180632. (doi:10.1098/rsbl.2018.0632)