

Resolution and accuracy in Congreve & Lamsdell matrices

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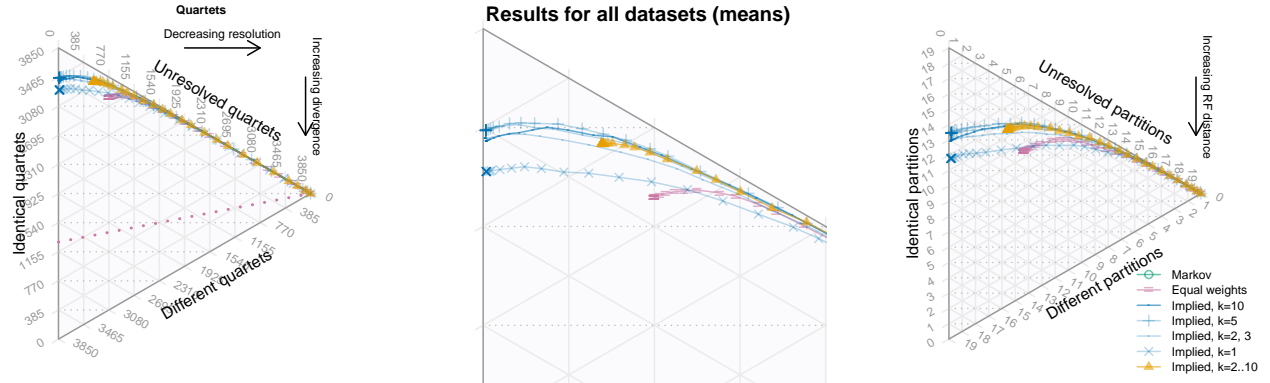
2019-01-10

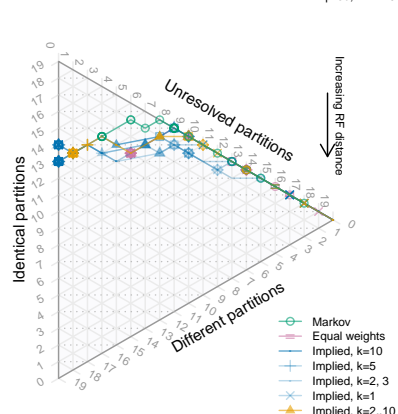
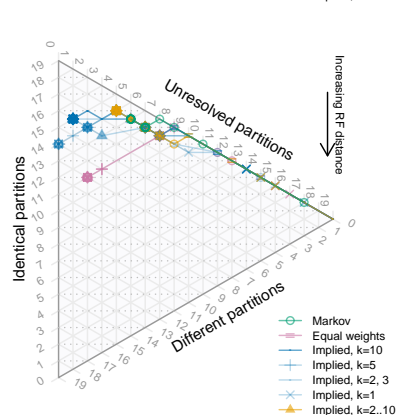
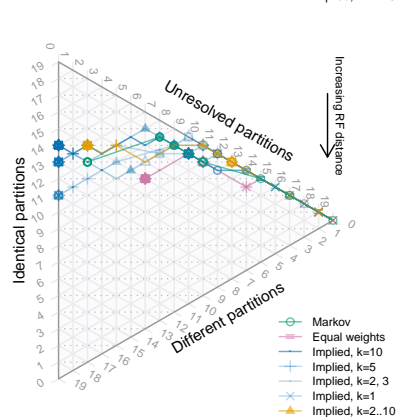
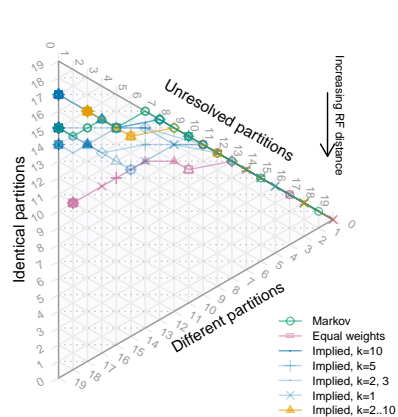
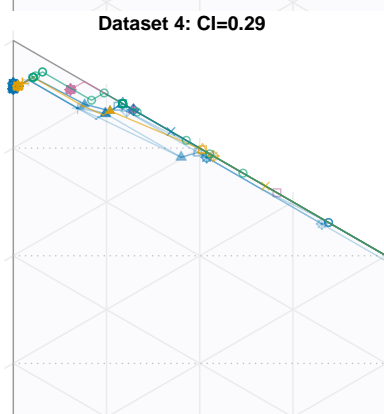
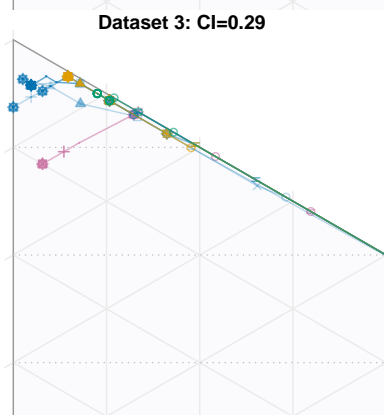
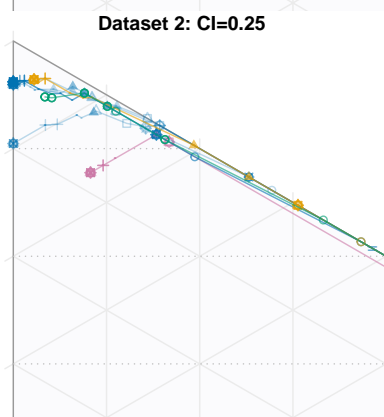
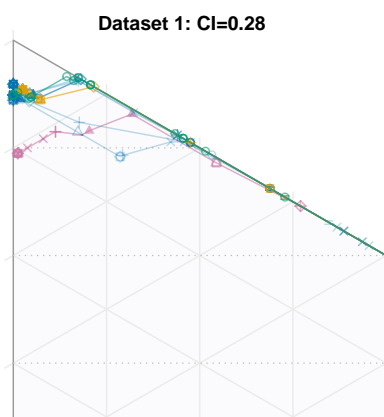
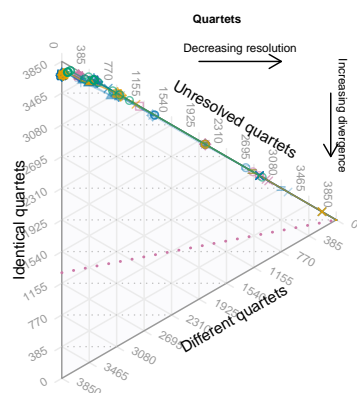
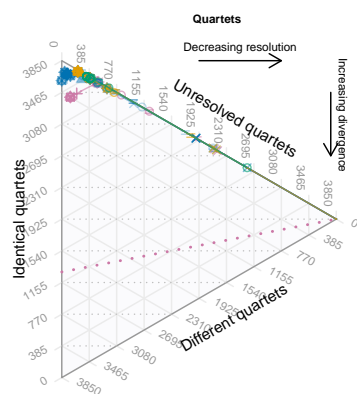
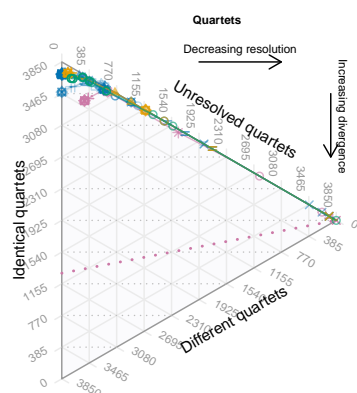
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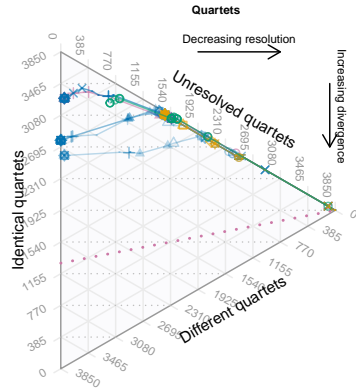
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This page depicts the analytical results of all 100 matrices generated by Congreve & Lamsdell [1] using a ternary plotting approach [2], with quartets and partitions used as distance metrics.

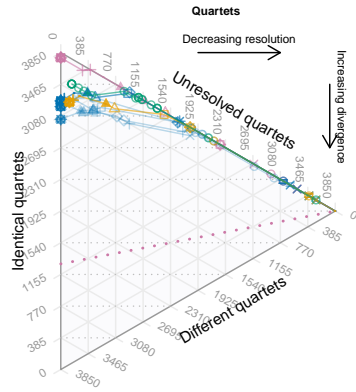
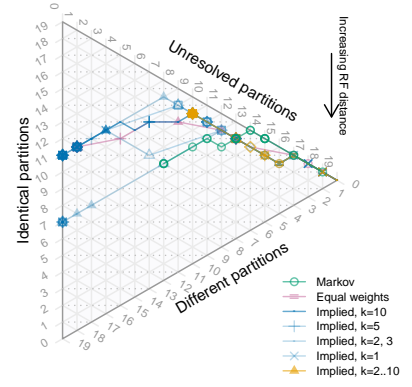
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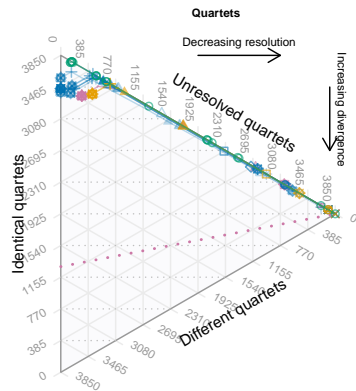
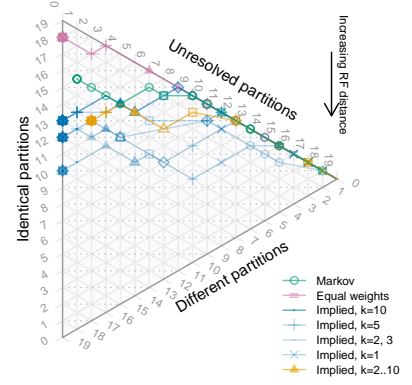




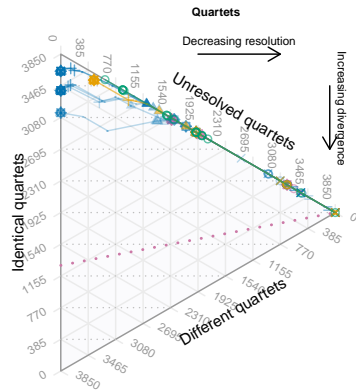
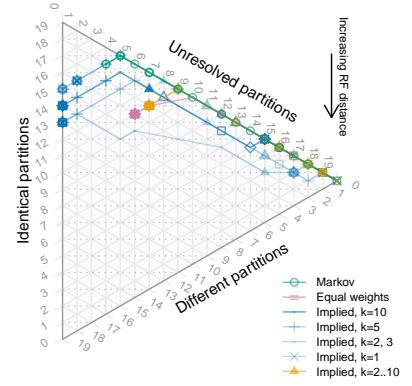
Dataset 5: CI=0.26



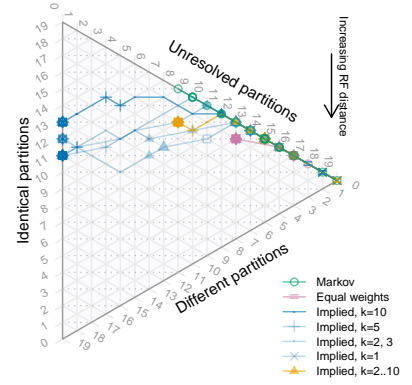
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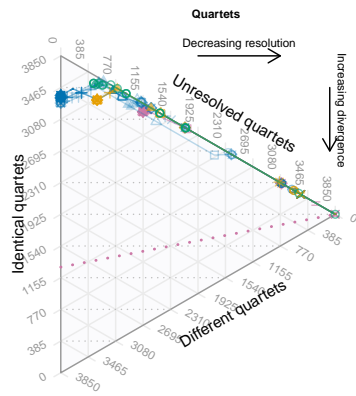


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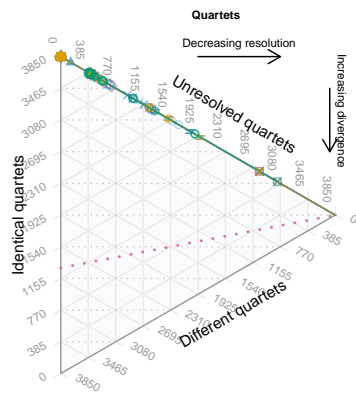
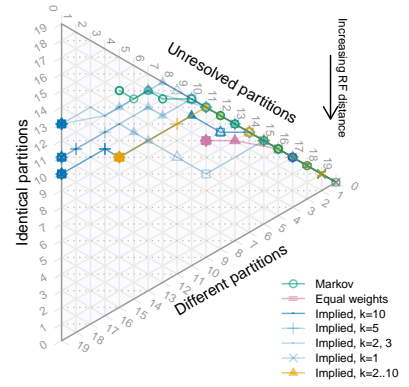


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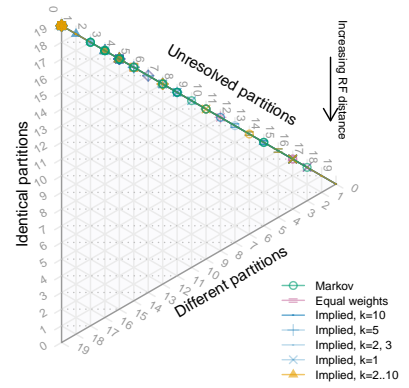




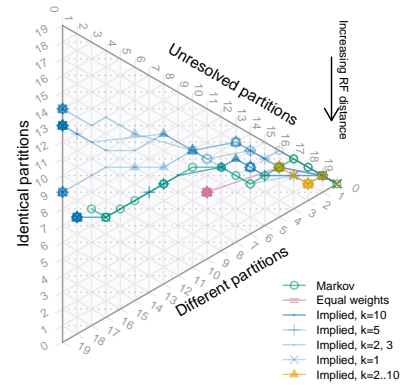
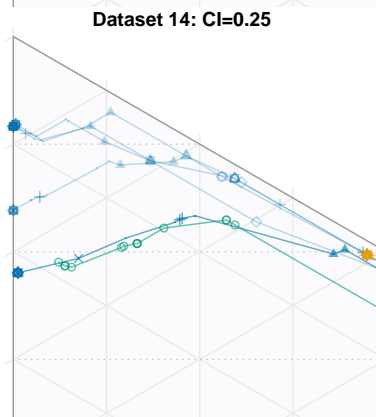
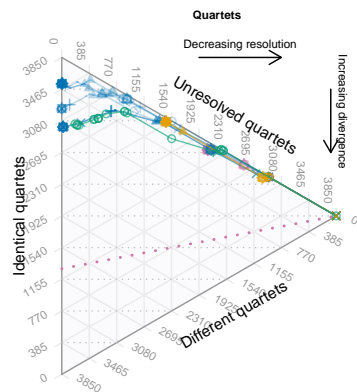
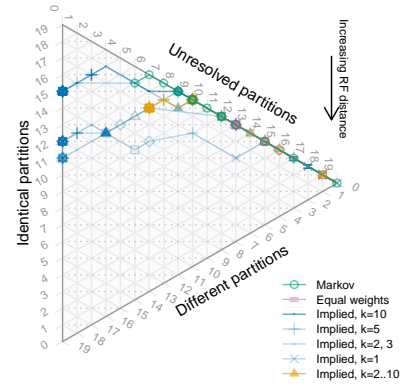
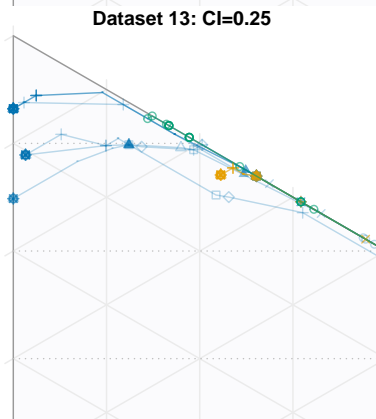
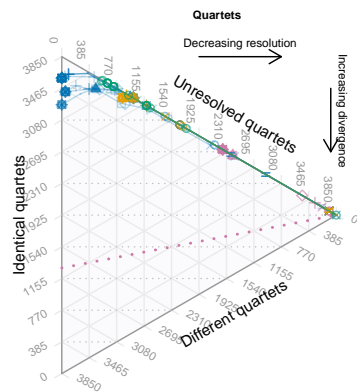
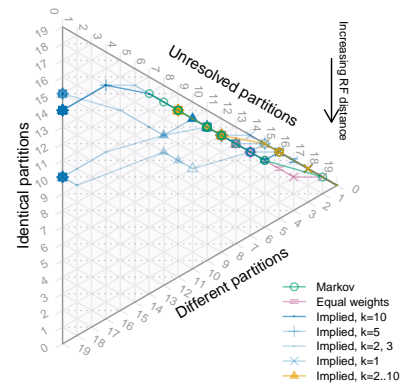
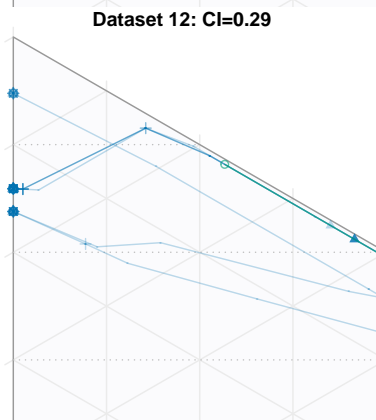
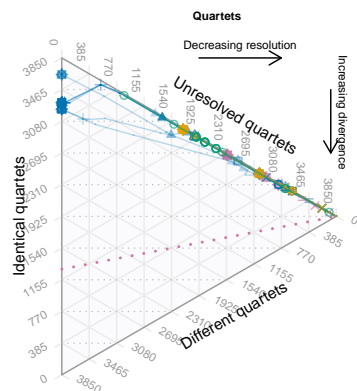
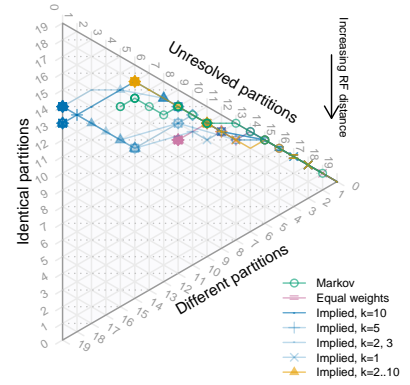
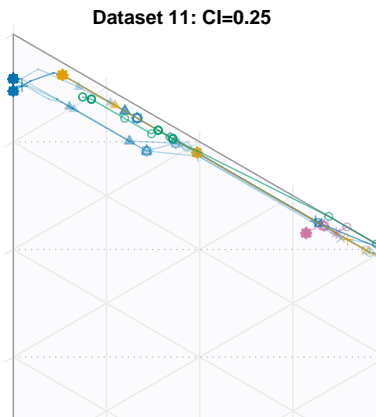
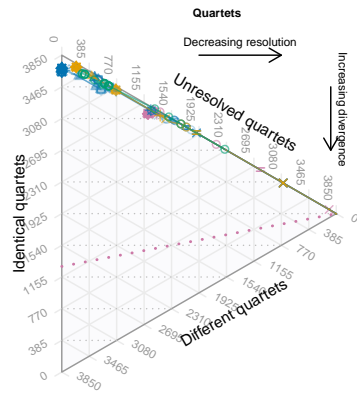
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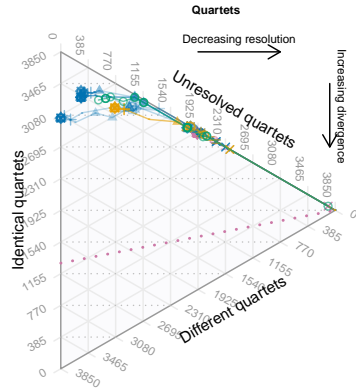


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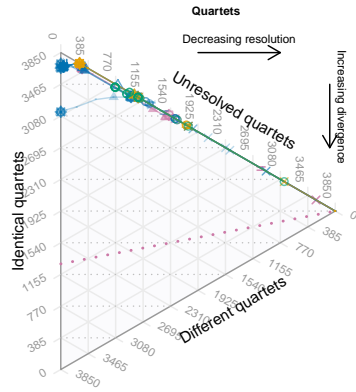
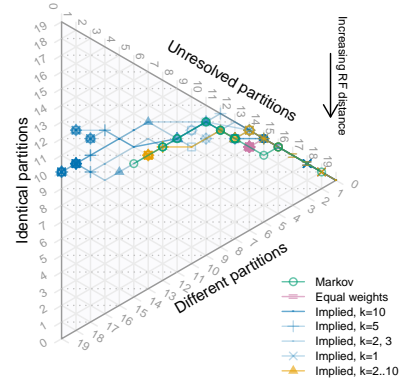


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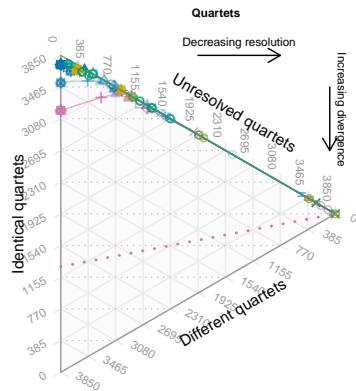
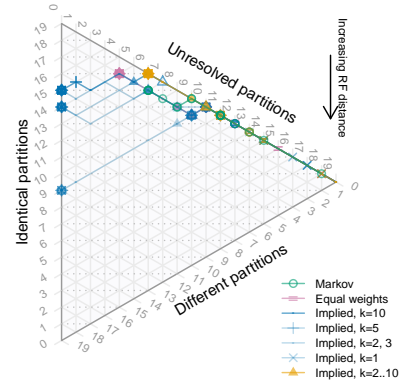




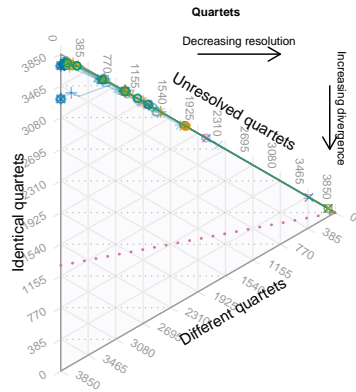
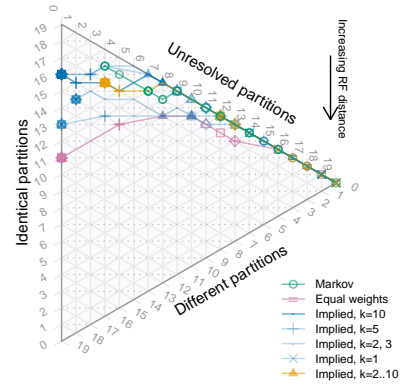
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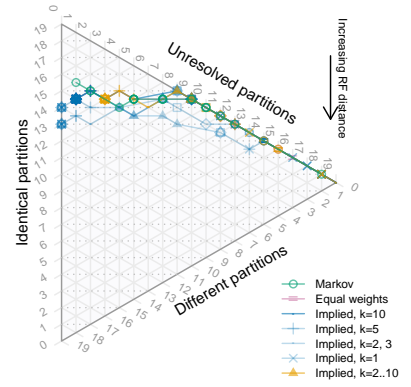
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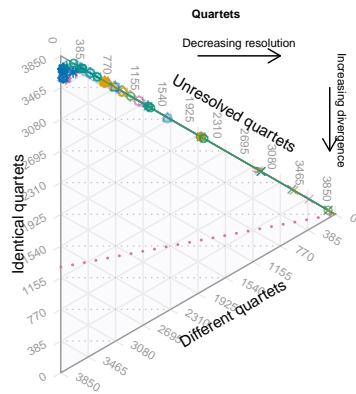


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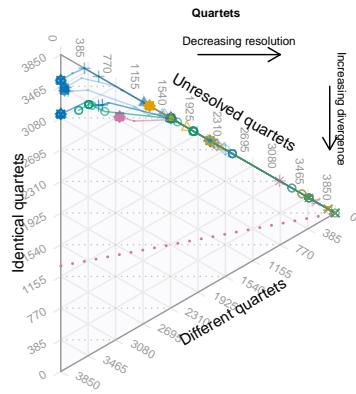
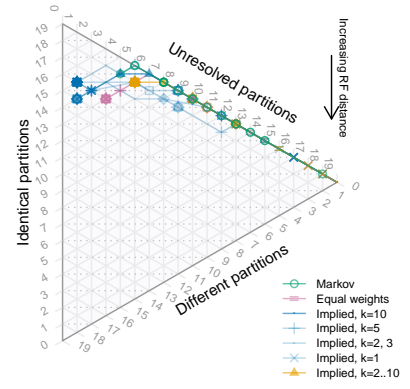
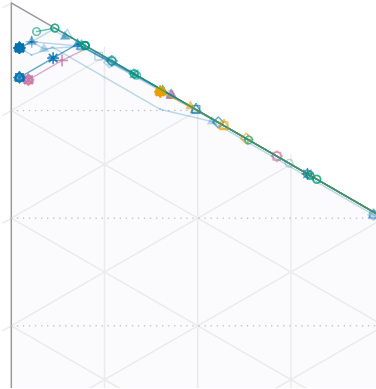


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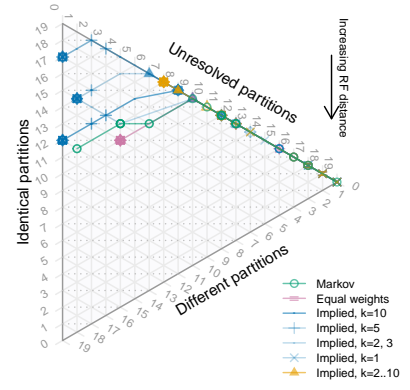
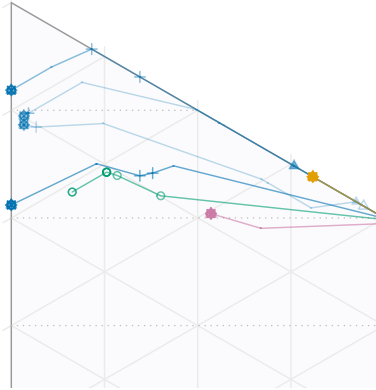




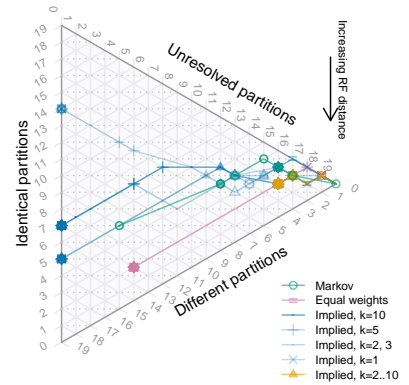
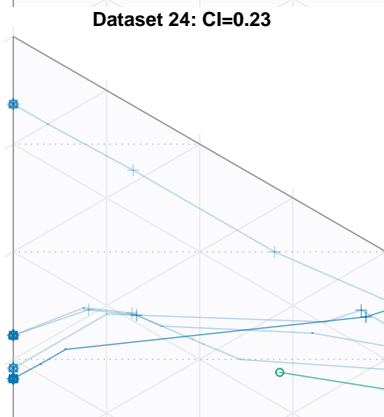
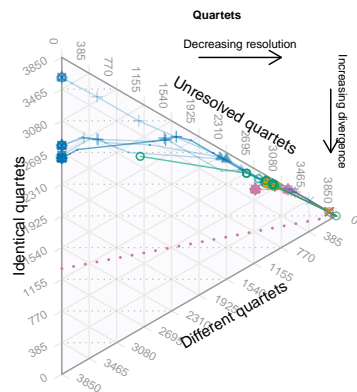
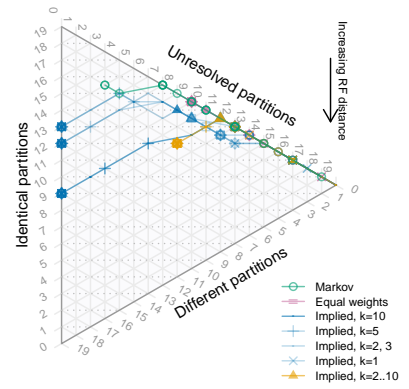
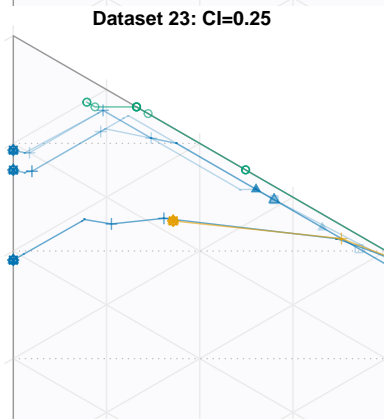
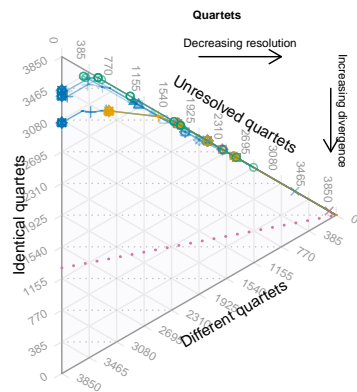
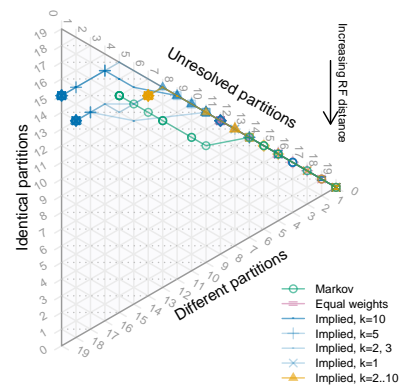
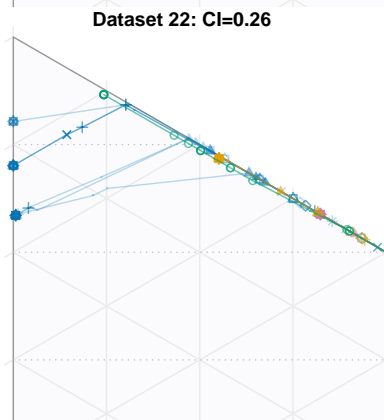
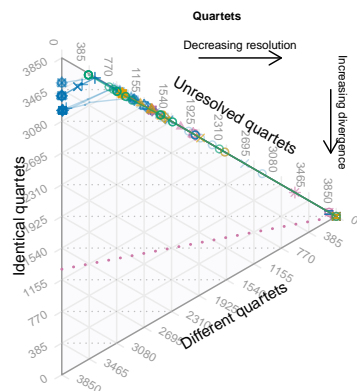
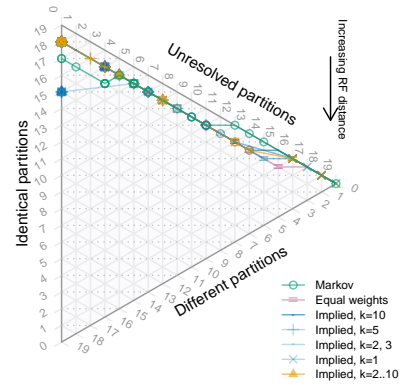
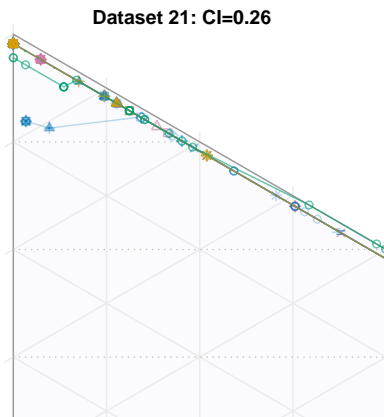
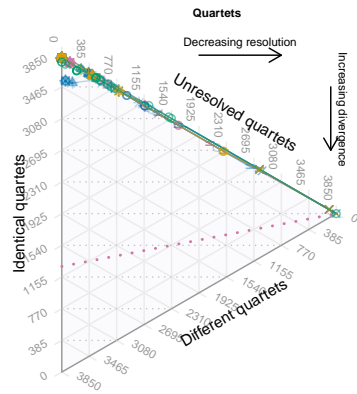
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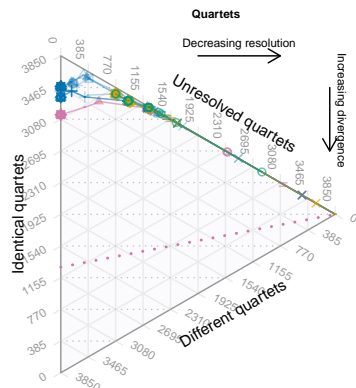


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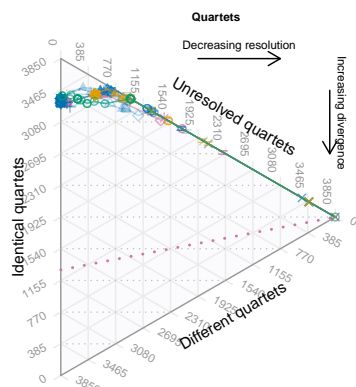
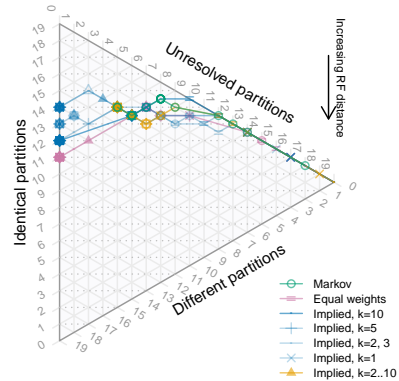


0.4 Trees 21–30

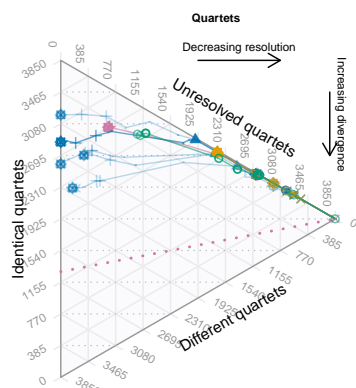
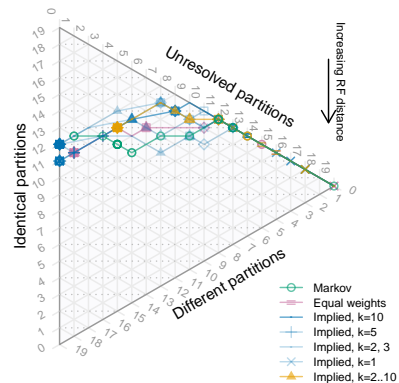




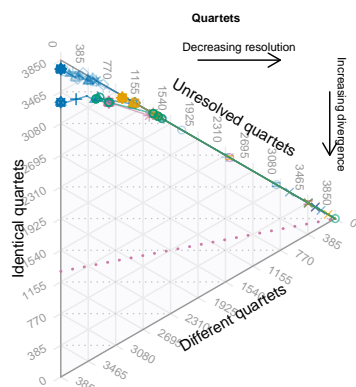
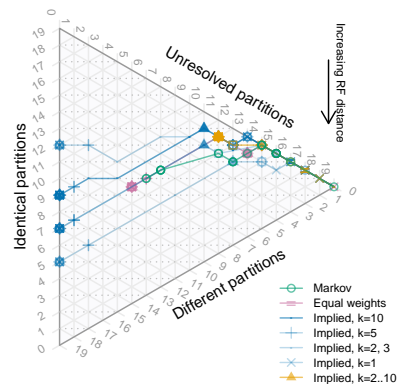
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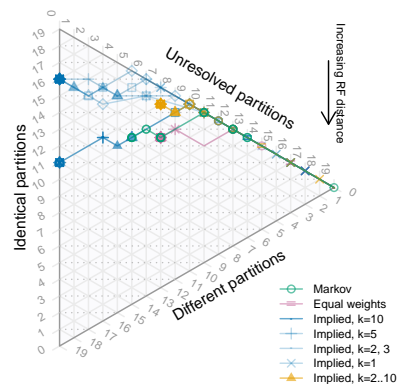
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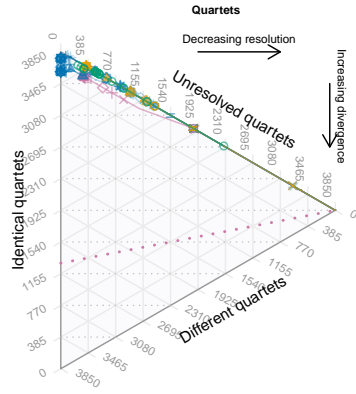


Dataset 27: CI=0.26

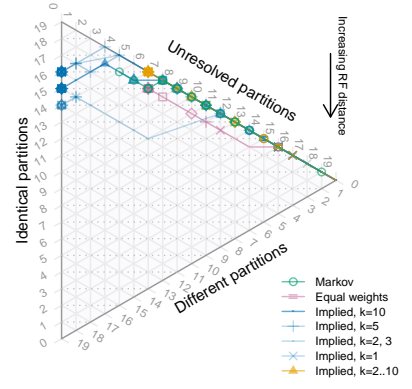
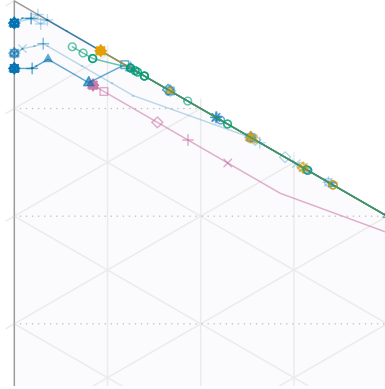


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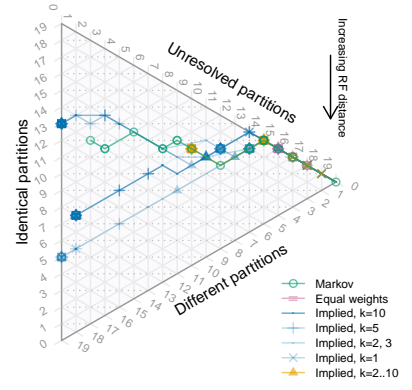
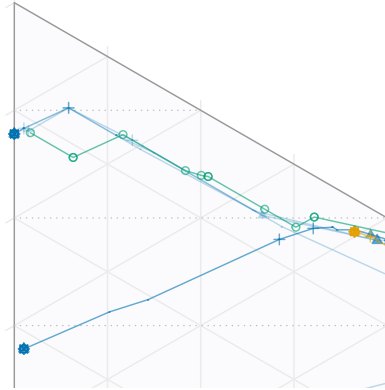




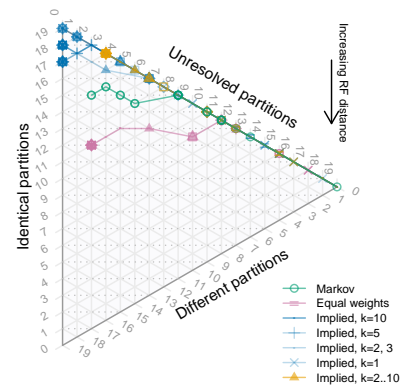
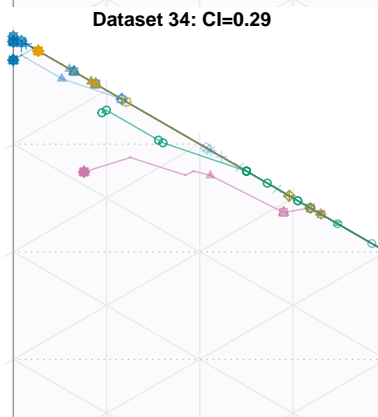
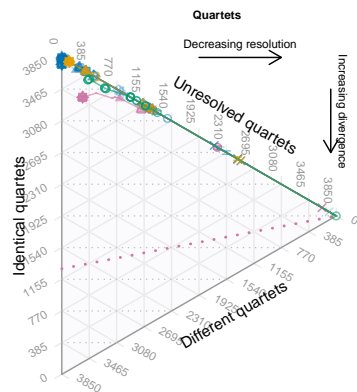
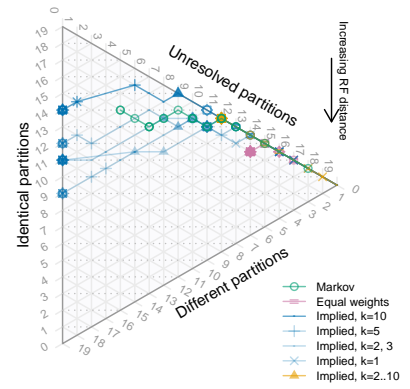
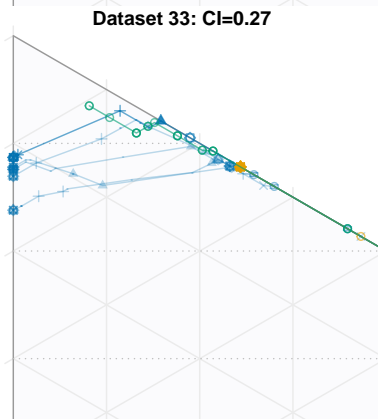
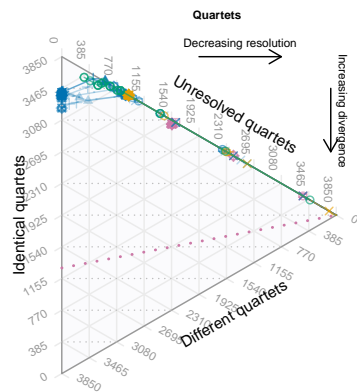
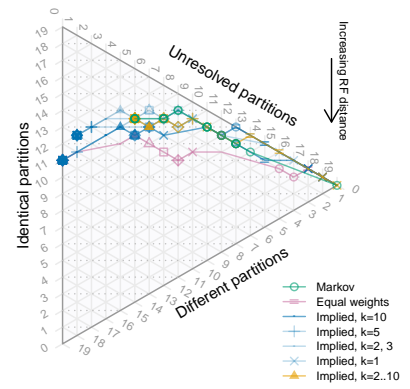
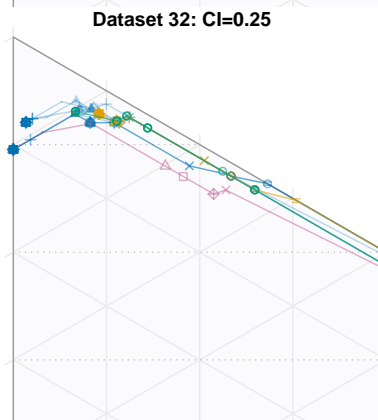
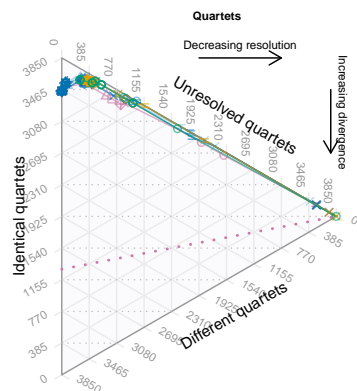
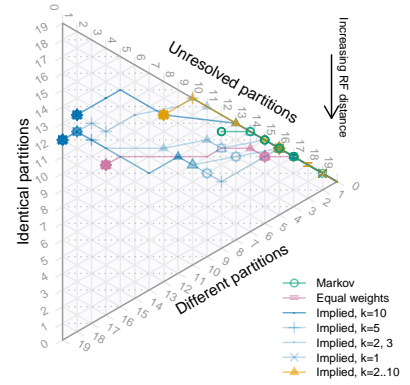
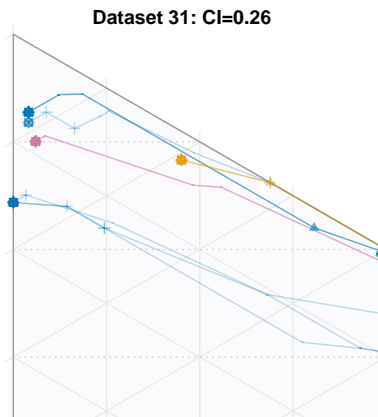
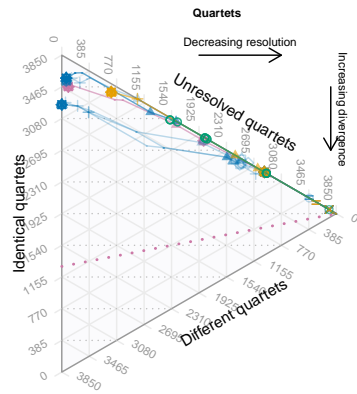
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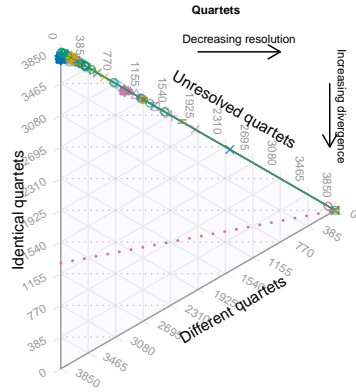


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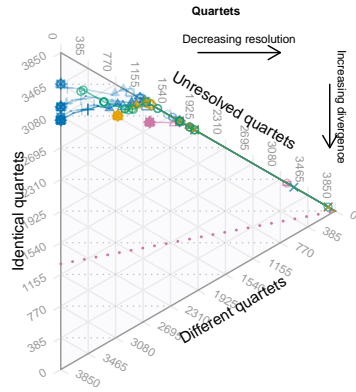
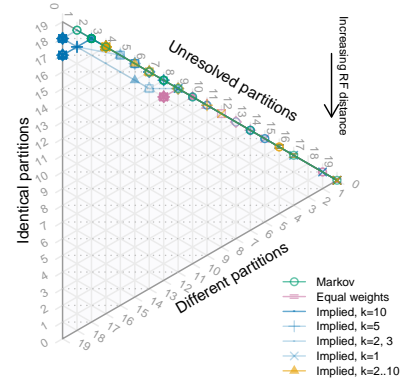


0.5 Trees 31–40

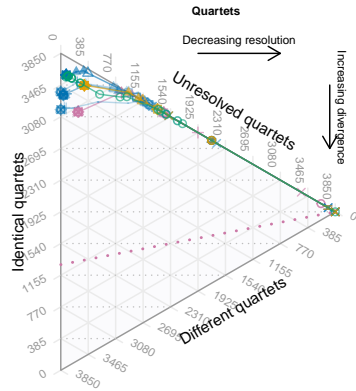
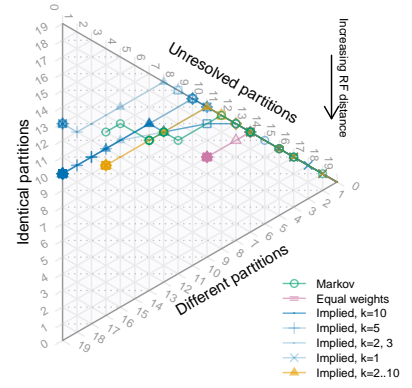




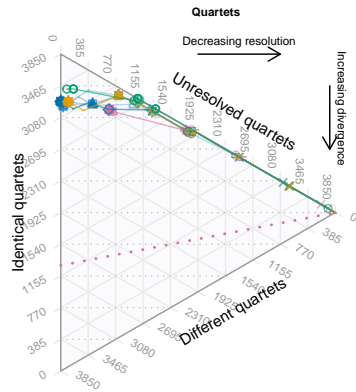
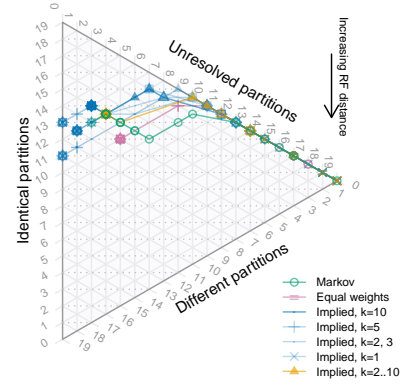
Dataset 35: CI=0.25



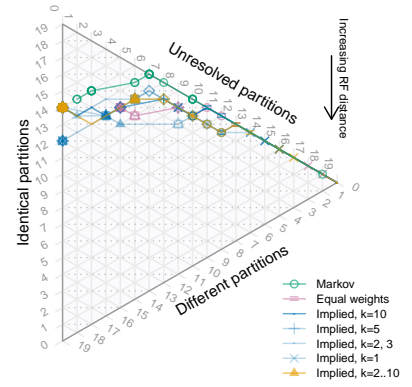
Dataset 36: CI=0.24

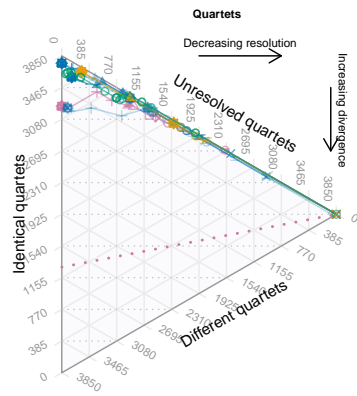


Dataset 37: CI=0.26

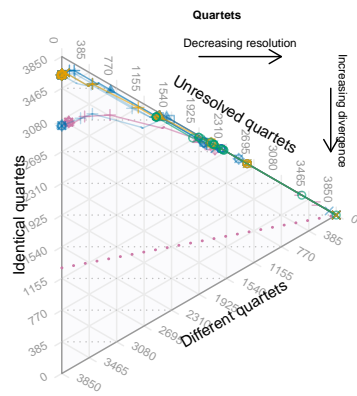
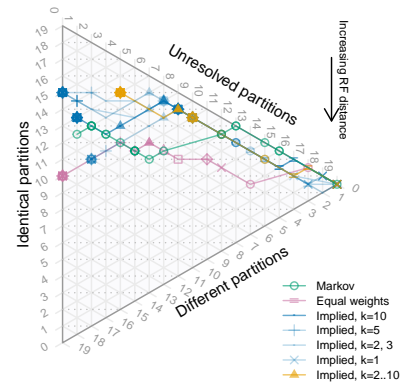
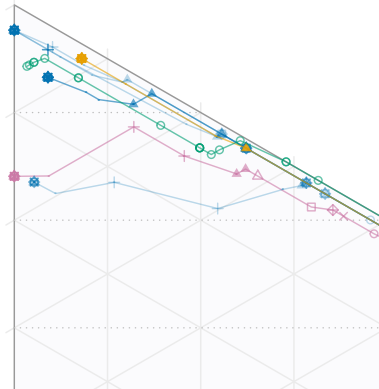


Dataset 38: CI=0.29

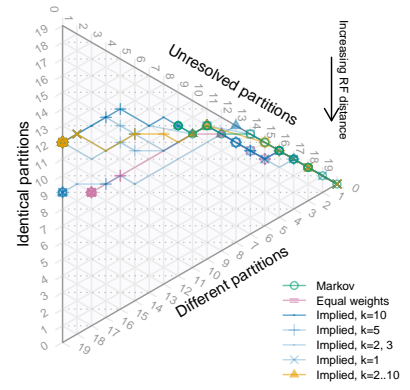
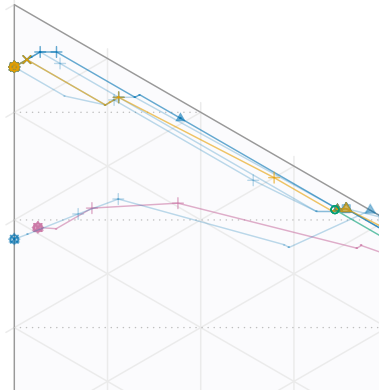




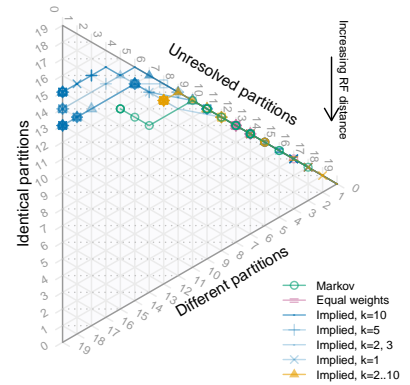
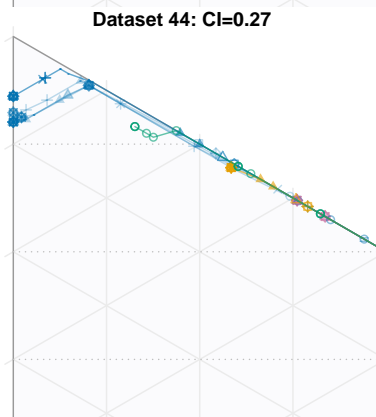
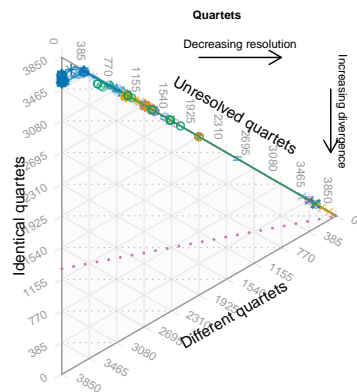
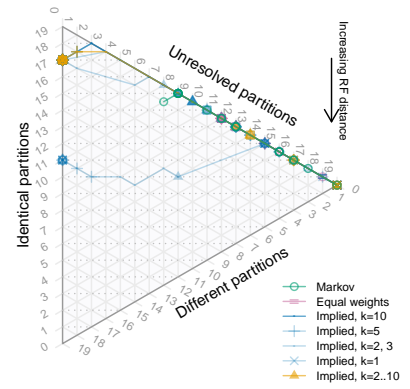
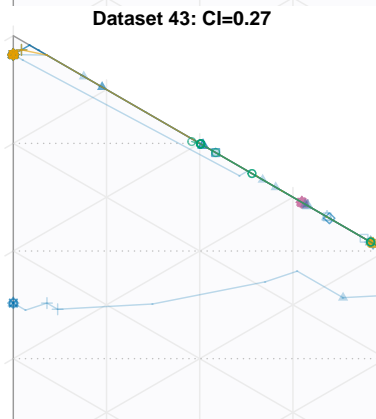
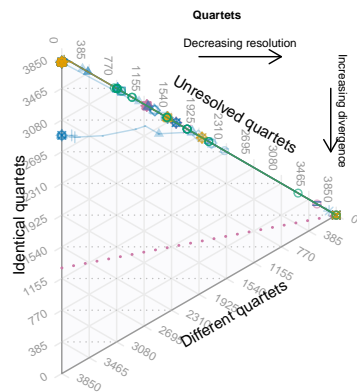
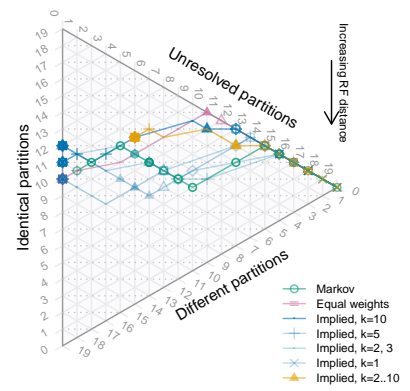
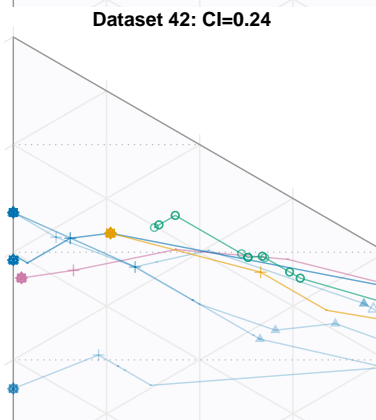
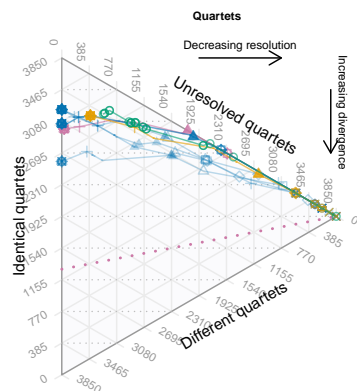
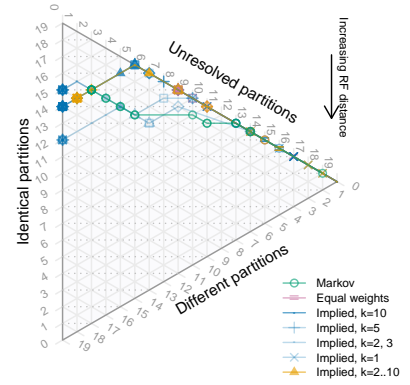
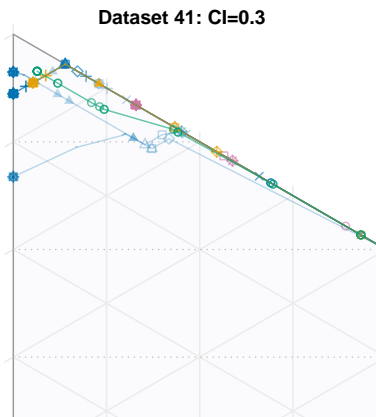
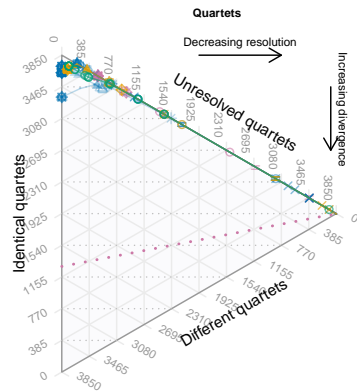
Dataset 39: CI=0.25

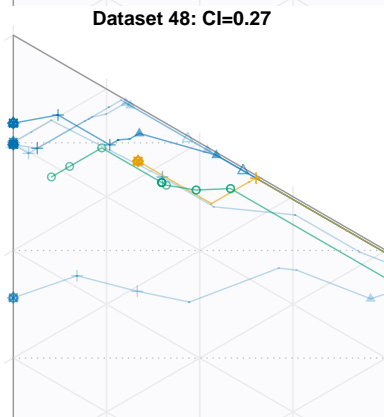
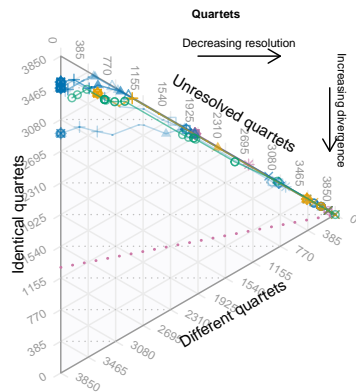
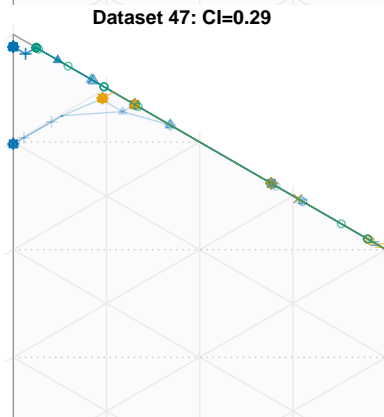
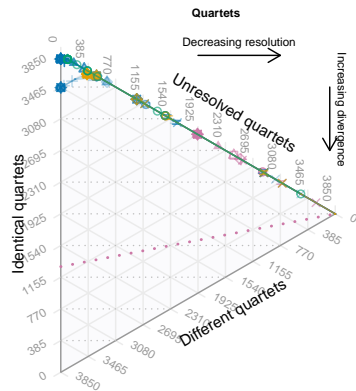
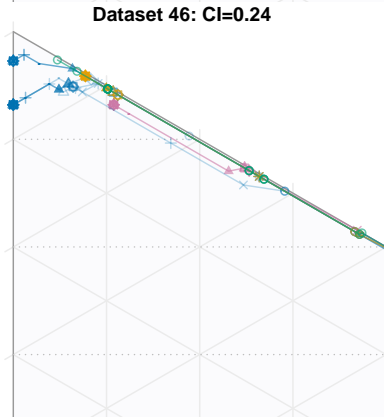
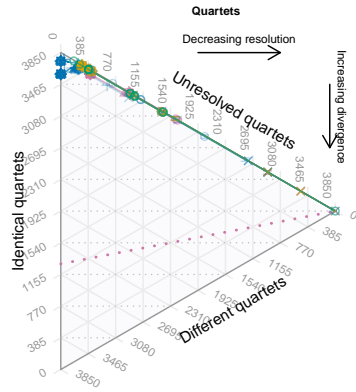
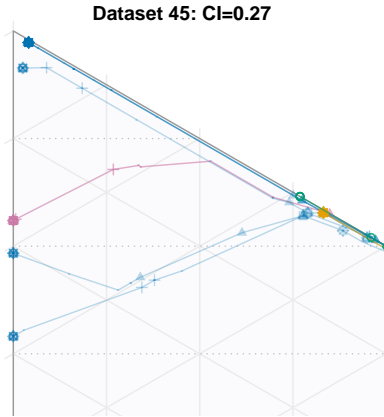
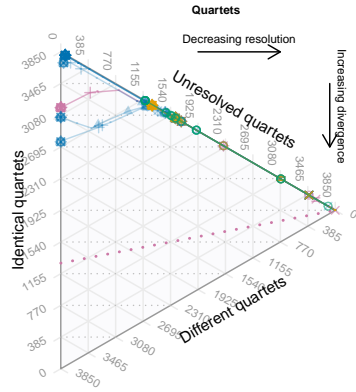


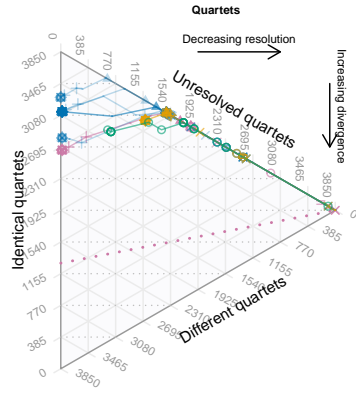
Dataset 40: CI=0.24



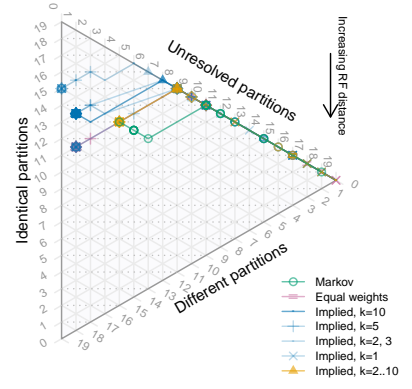
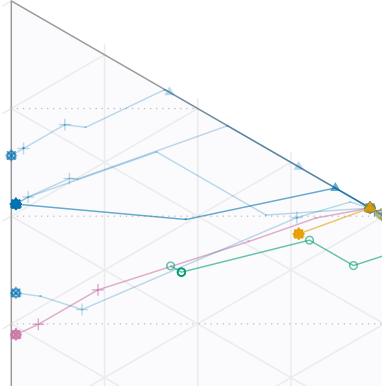
0.6 Trees 41–50



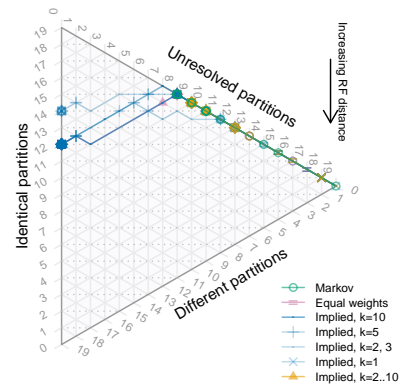
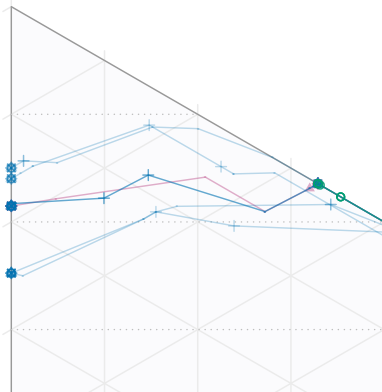
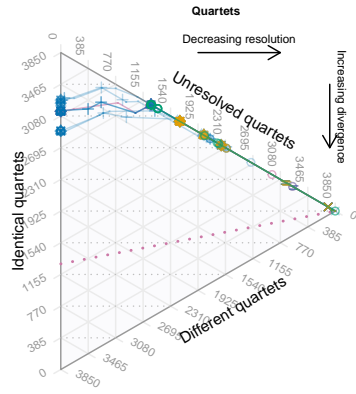




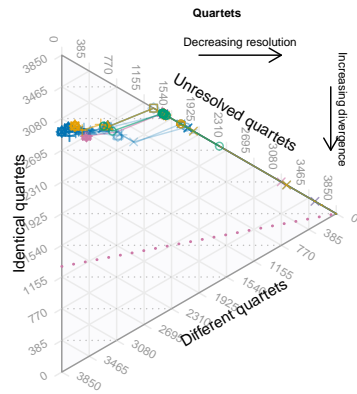
Dataset 49: CI=0.28



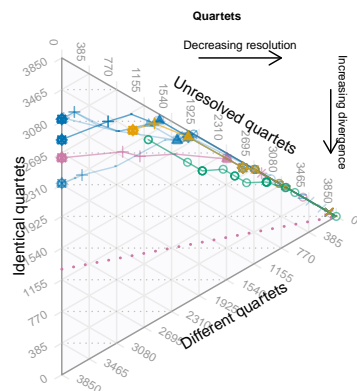
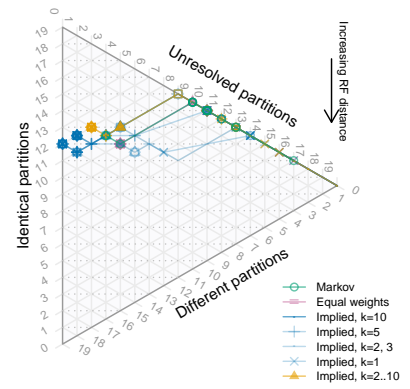
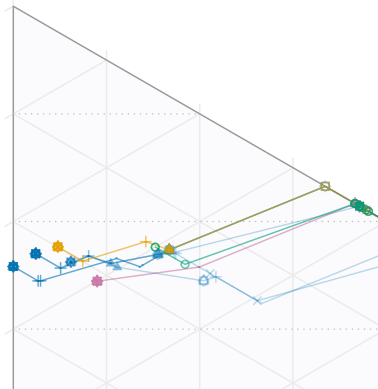
Dataset 50: CI=0.25



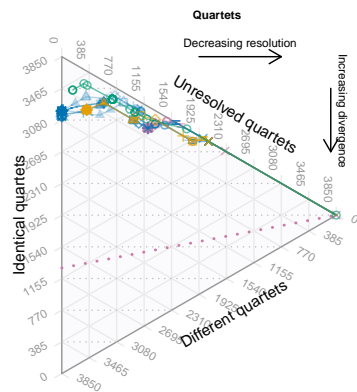
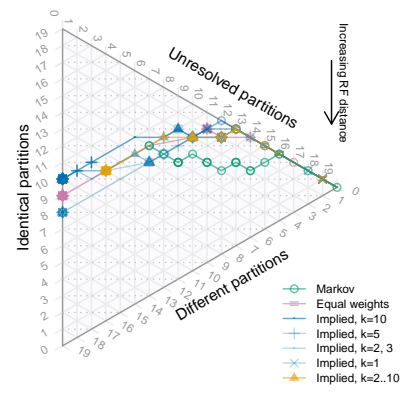
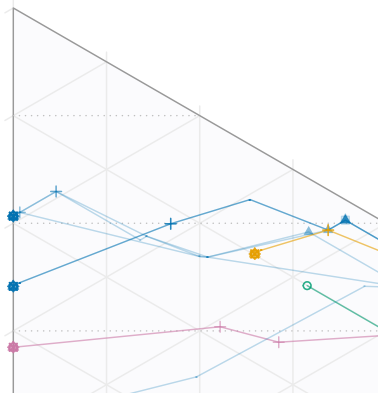
0.7 Trees 51–60



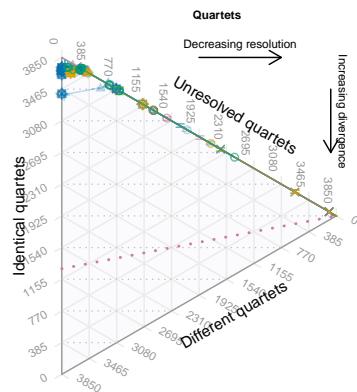
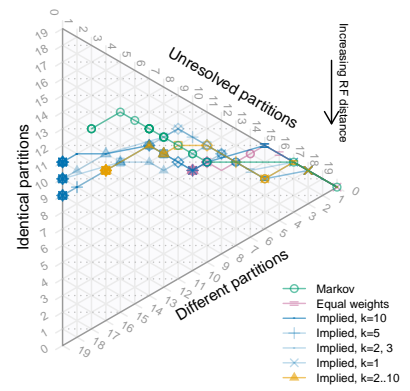
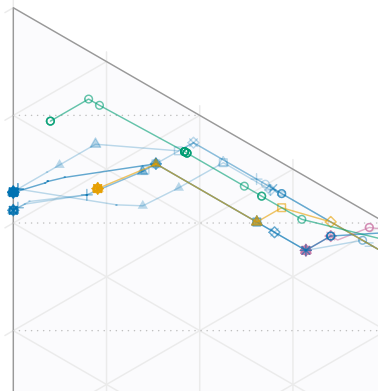
Dataset 51: CI=0.3



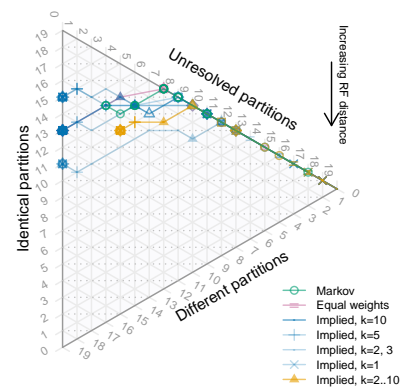
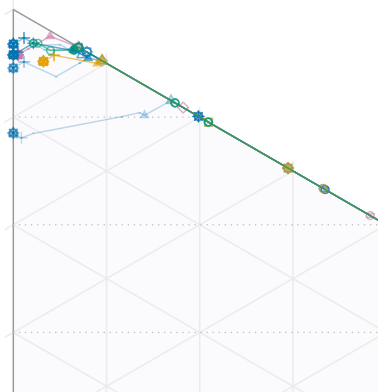
Dataset 52: CI=0.25

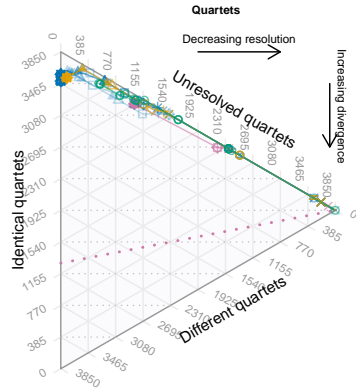


Dataset 53: CI=0.25

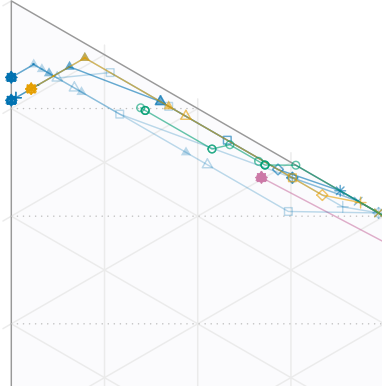


Dataset 54: CI=0.28

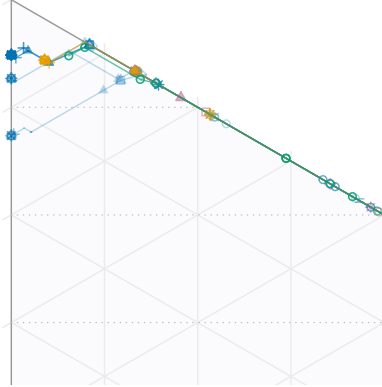




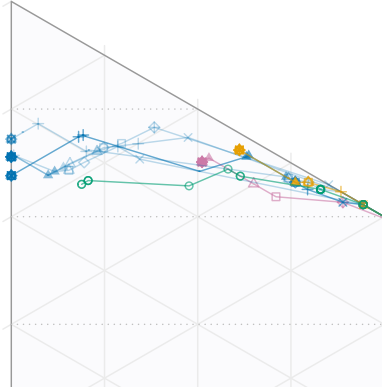
Dataset 55: CI=0.28



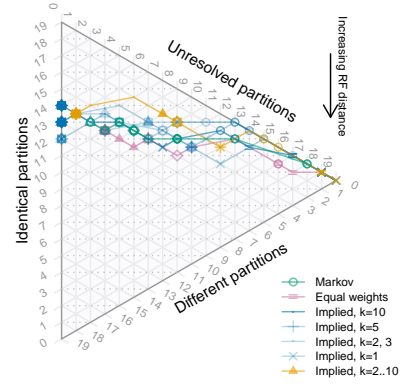
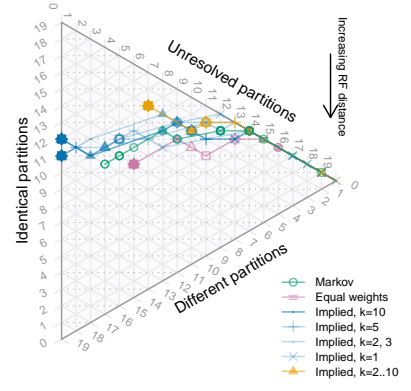
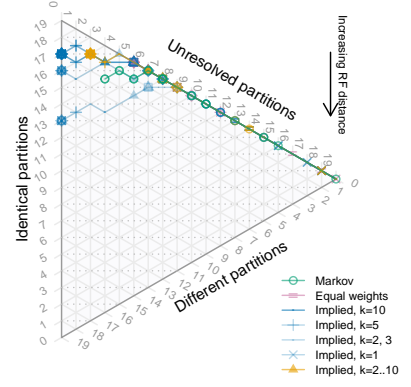
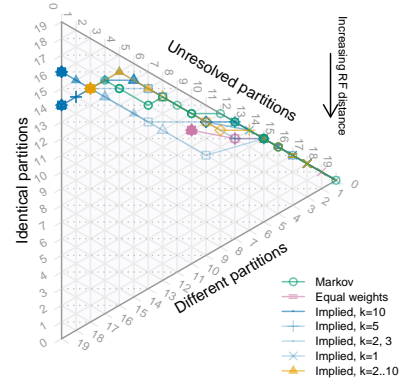
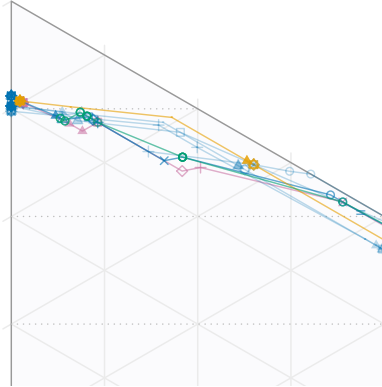
Dataset 56: CI=0.31

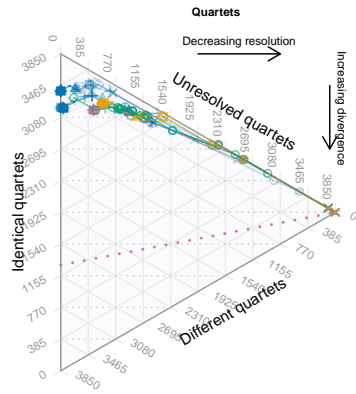


Dataset 57: CI=0.25

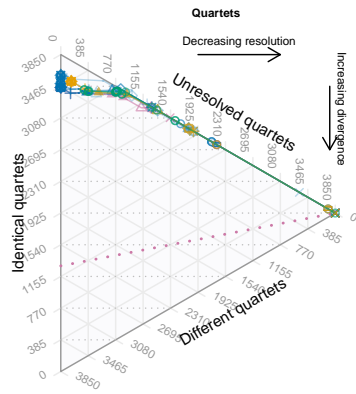
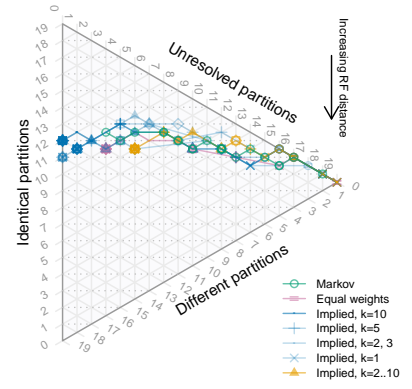
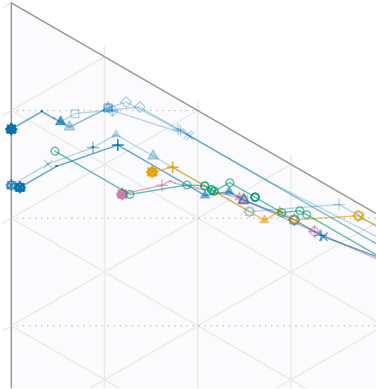


Dataset 58: CI=0.25

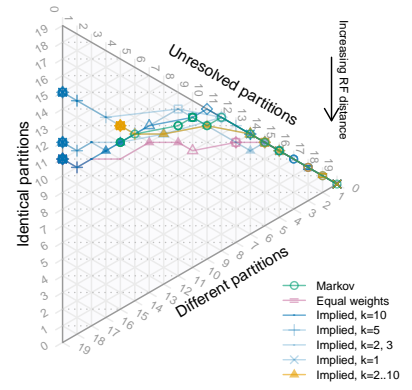
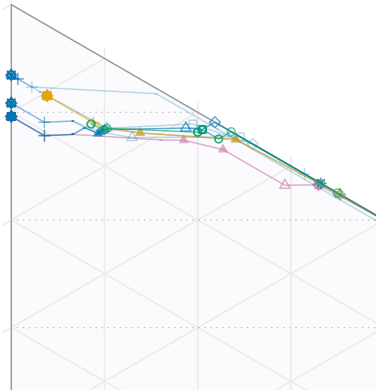




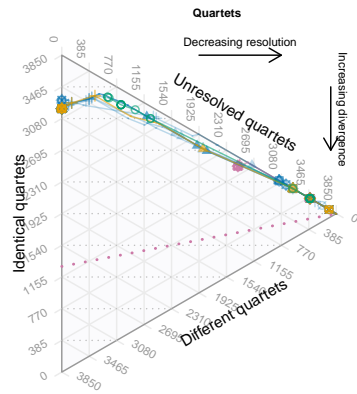
Dataset 59: CI=0.26



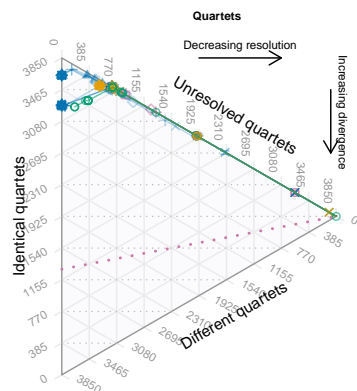
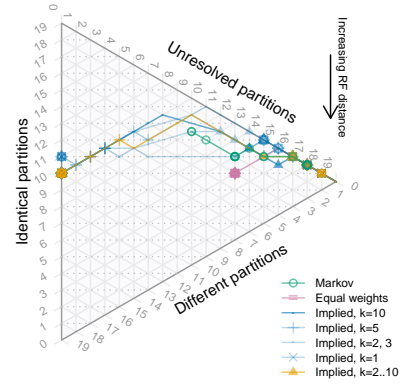
Dataset 60: CI=0.24



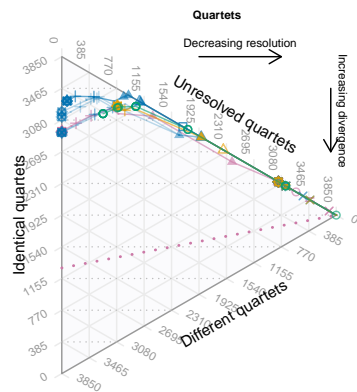
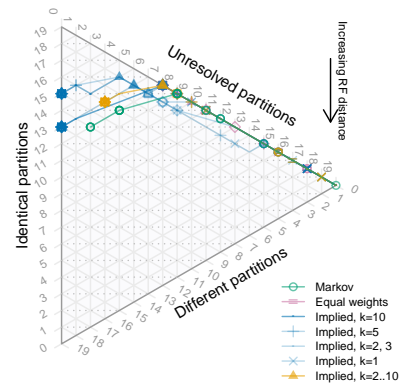
0.8 Trees 61–70



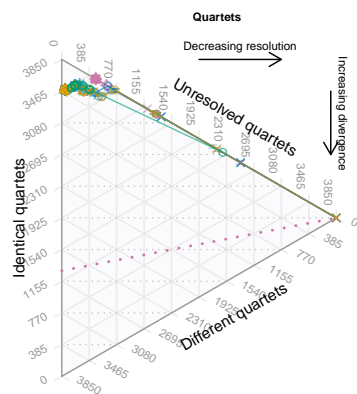
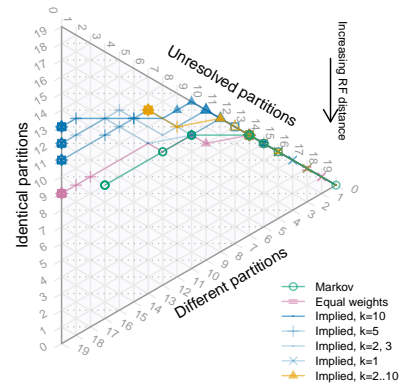
Dataset 61: CI=0.26



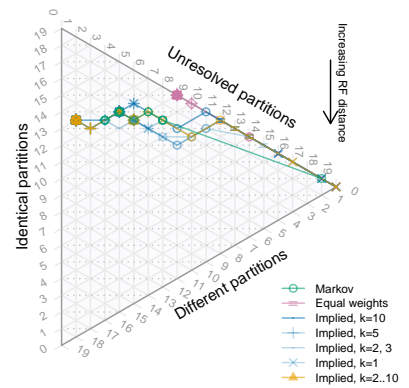
Dataset 62: CI=0.26

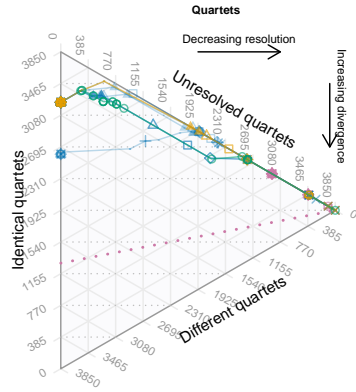


Dataset 63: CI=0.24

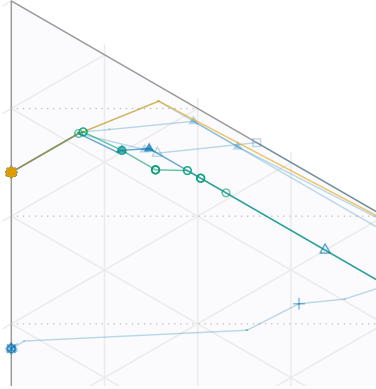


Dataset 64: CI=0.29

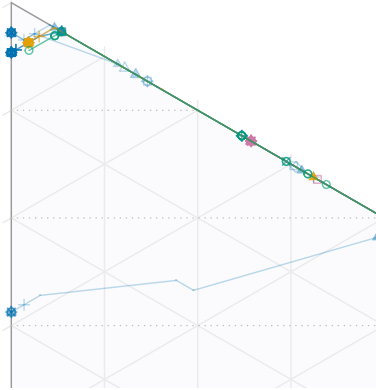




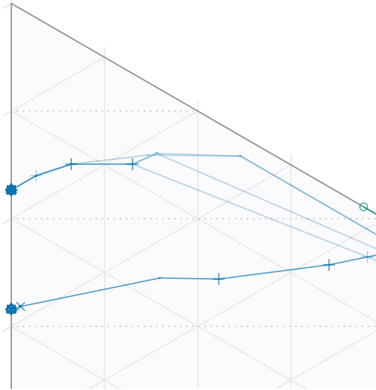
Dataset 65: CI=0.25



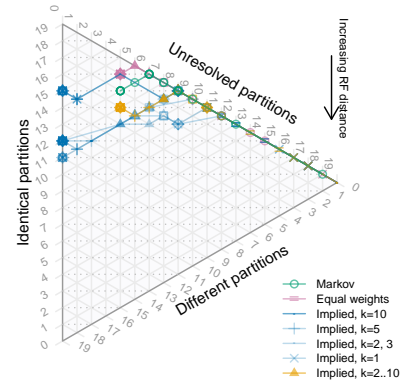
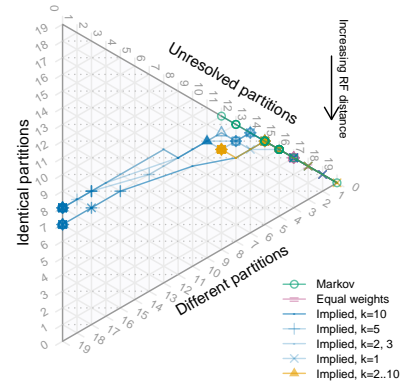
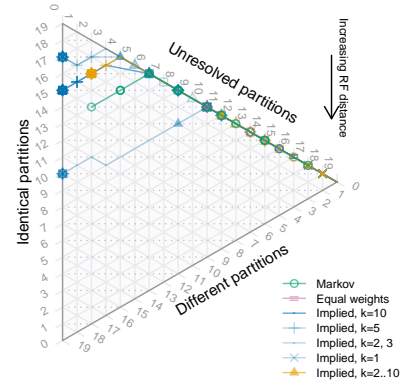
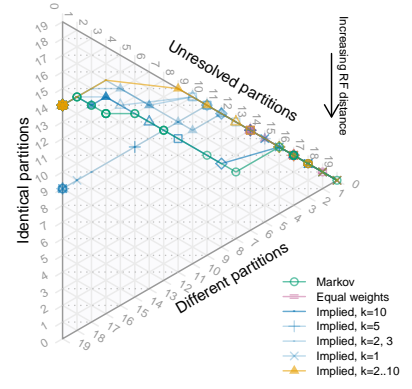
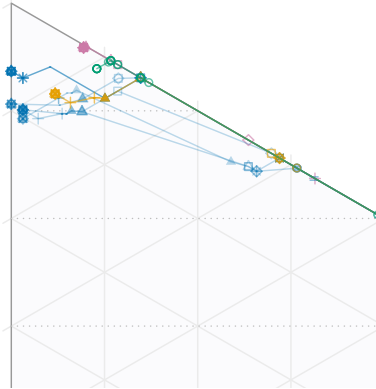
Dataset 66: CI=0.27

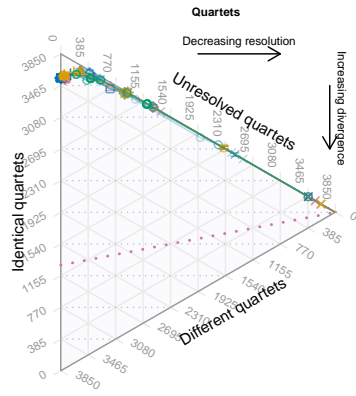


Dataset 67: CI=0.26

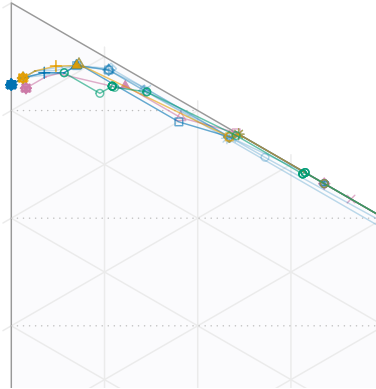


Dataset 68: CI=0.31

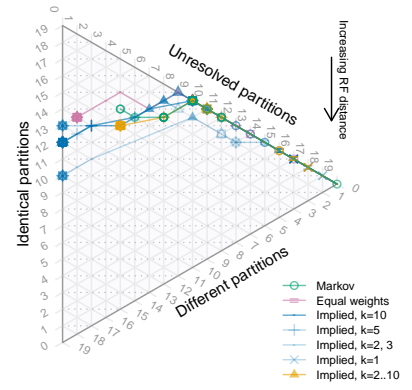
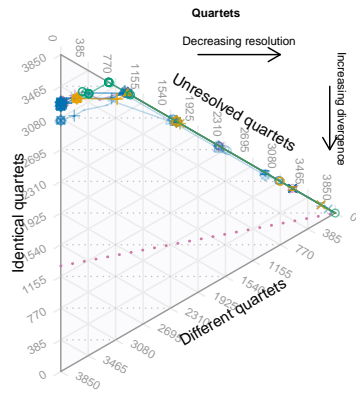
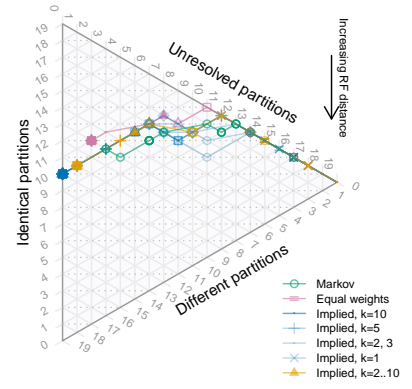
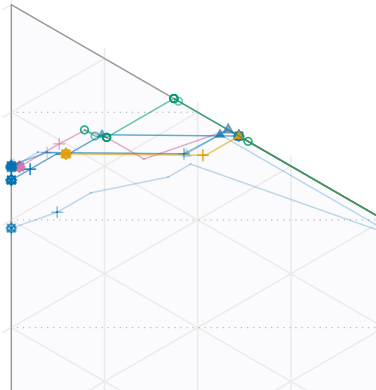




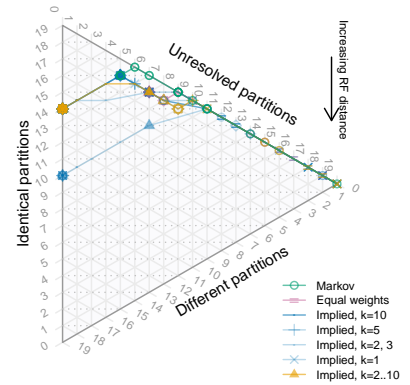
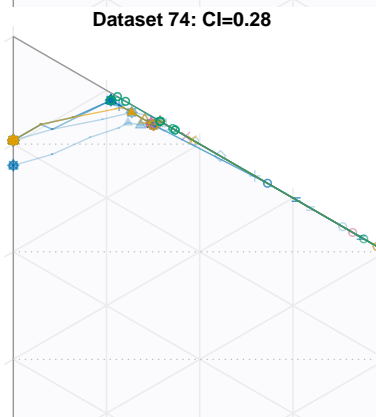
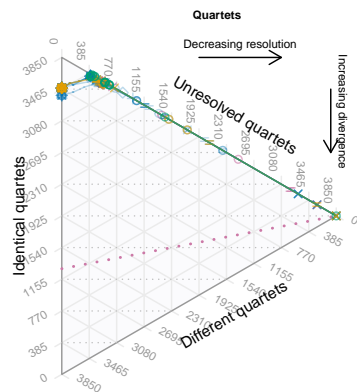
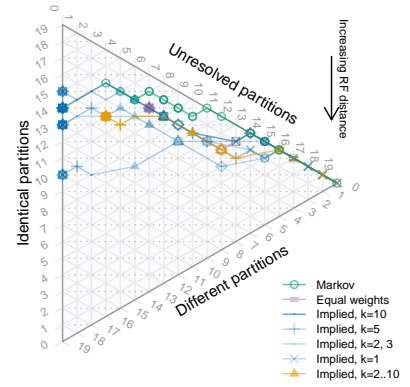
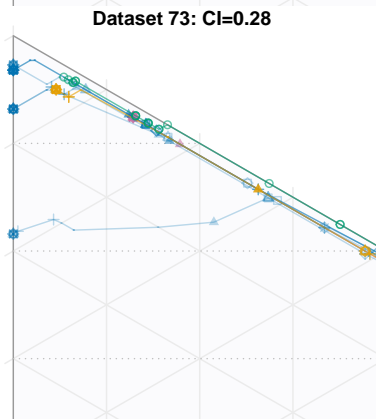
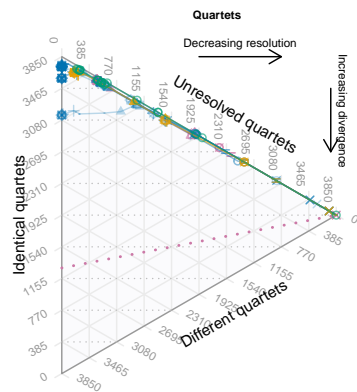
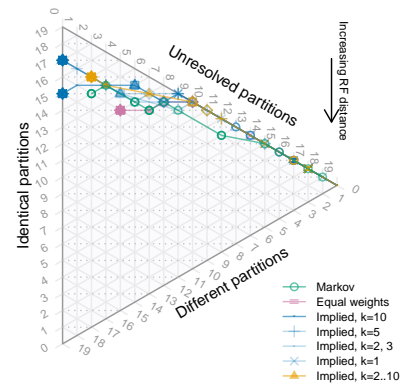
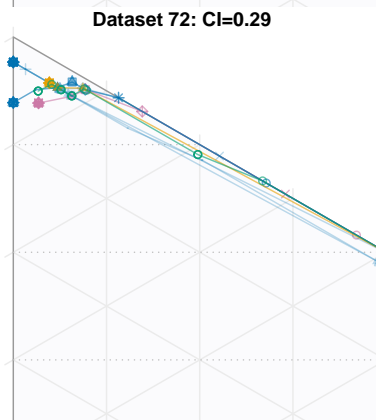
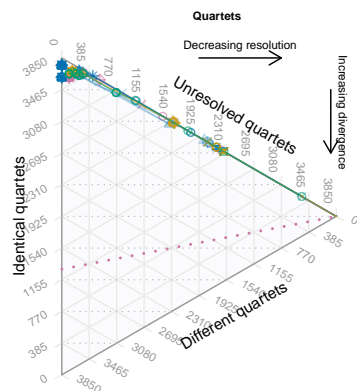
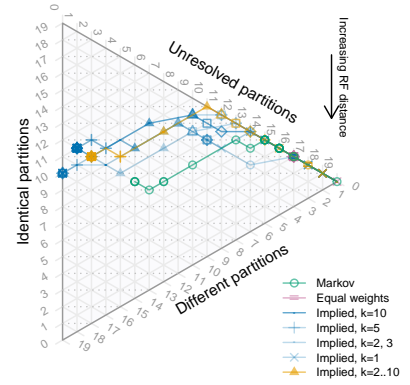
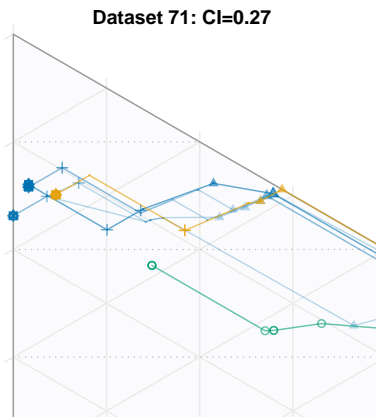
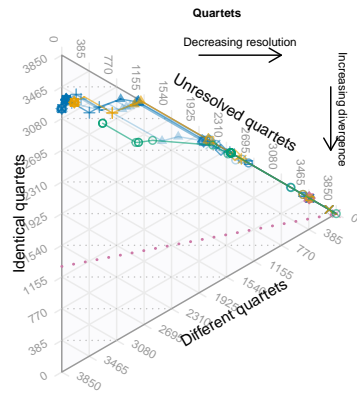
Dataset 69: CI=0.27

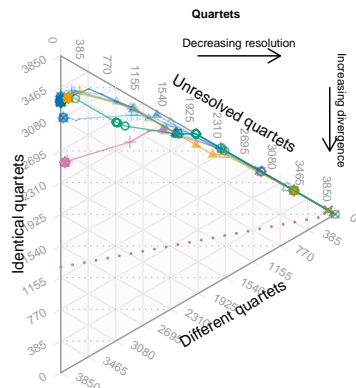


Dataset 70: CI=0.27

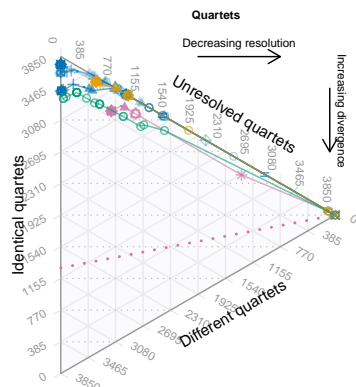
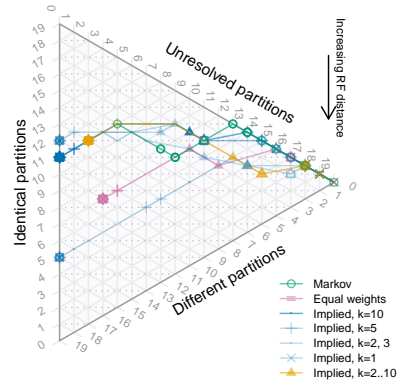


0.9 Trees 71–80

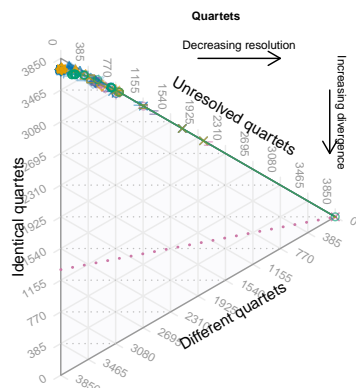
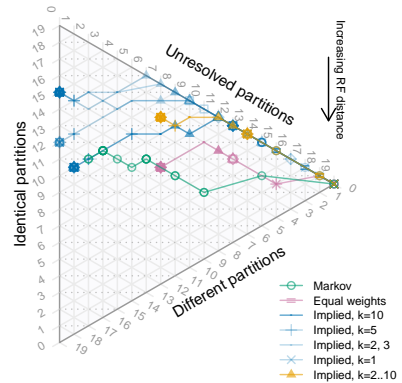




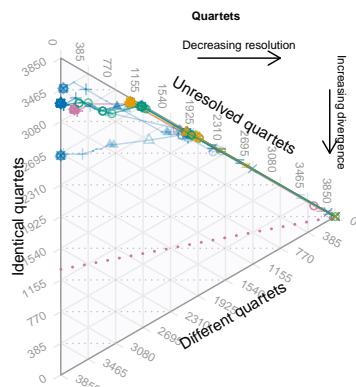
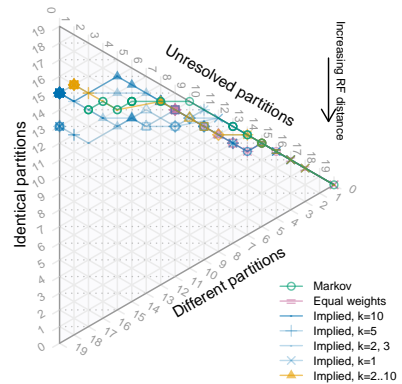
Dataset 75: CI=0.24



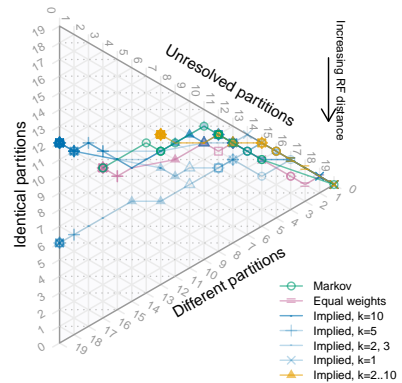
Dataset 76: CI=0.26

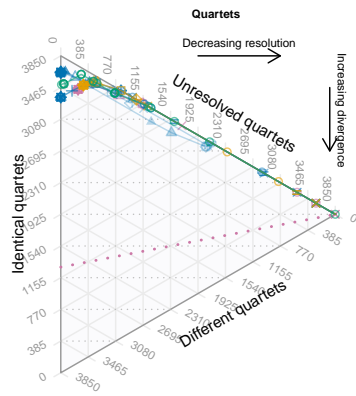


Dataset 77: CI=0.28

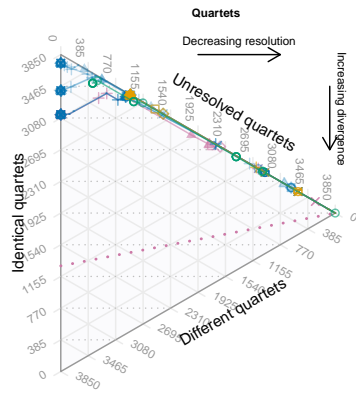
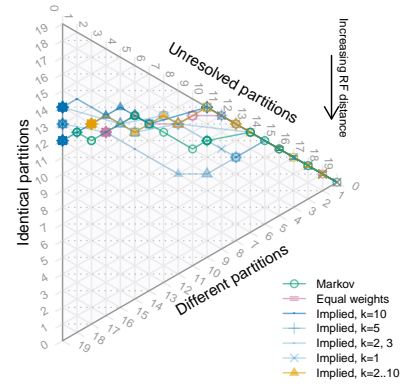
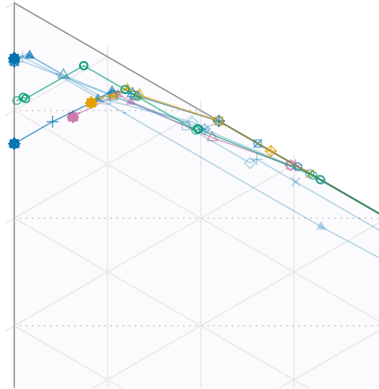


Dataset 78: CI=0.24

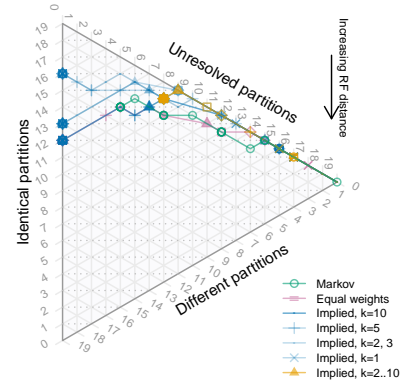
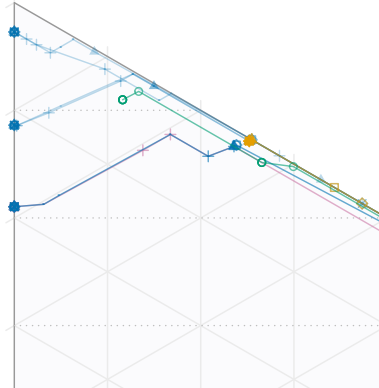




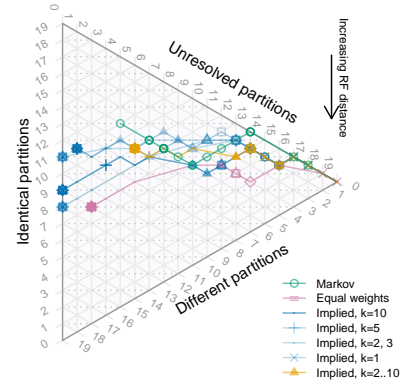
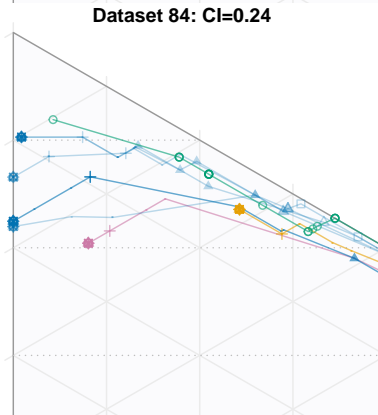
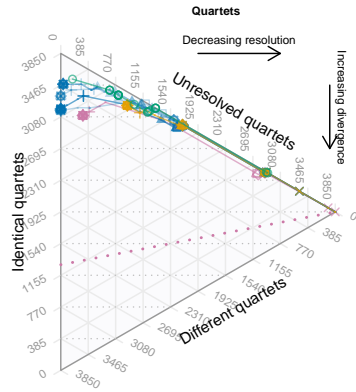
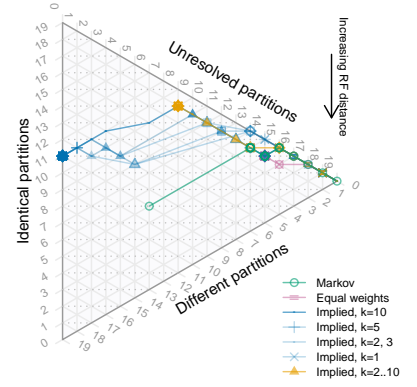
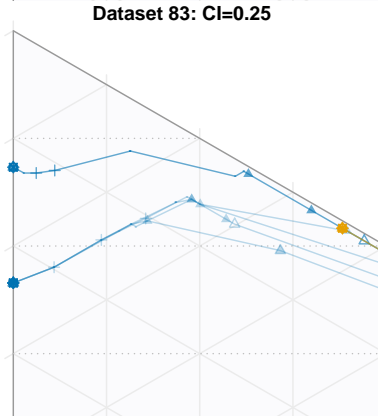
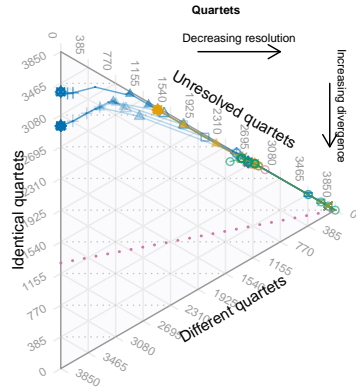
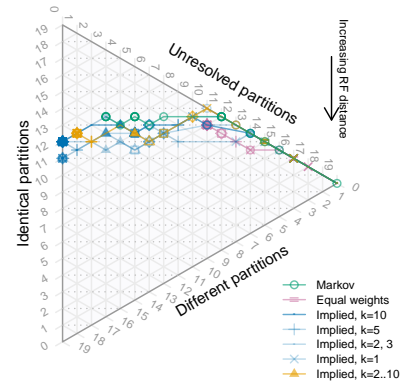
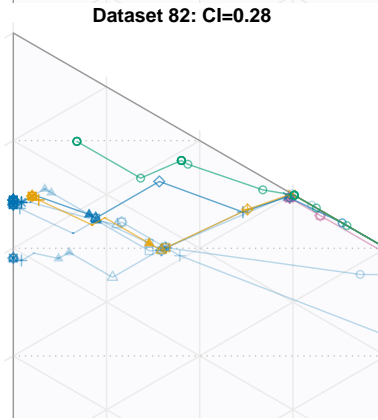
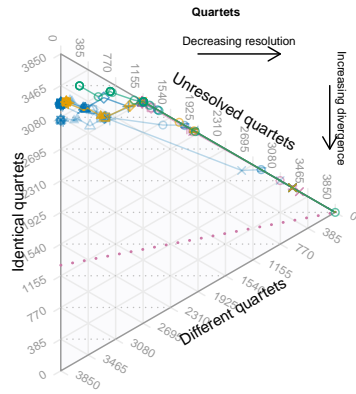
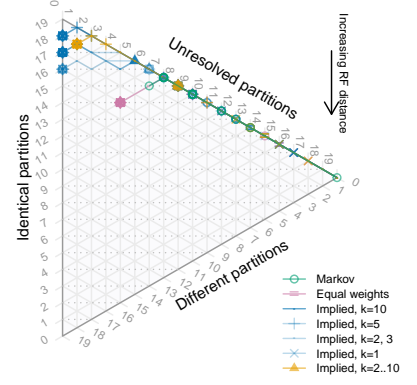
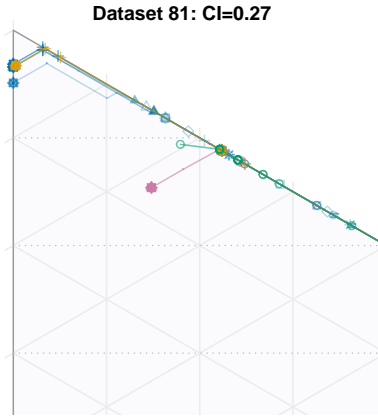
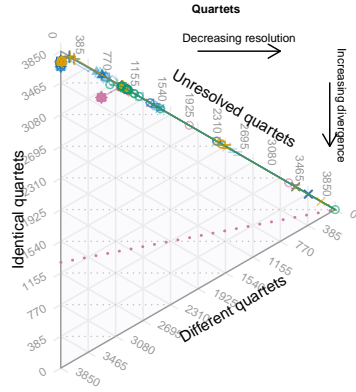
Dataset 79: CI=0.24

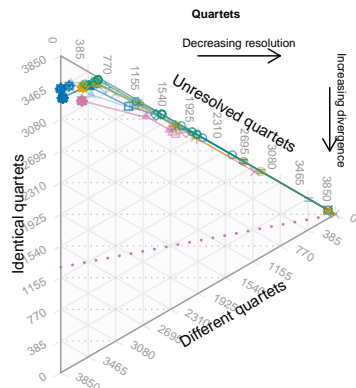


Dataset 80: CI=0.27

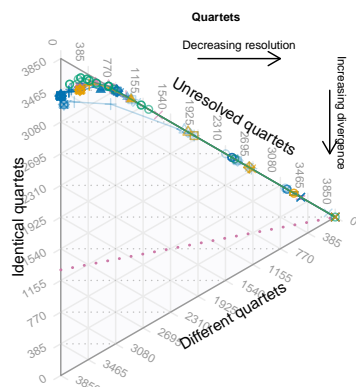
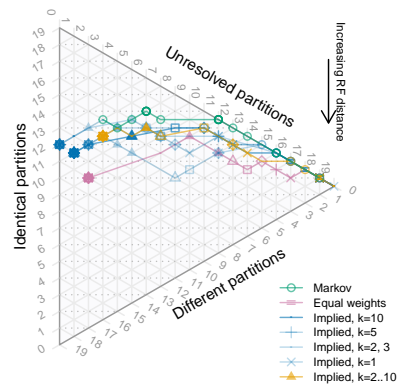


0.10 Trees 81–90

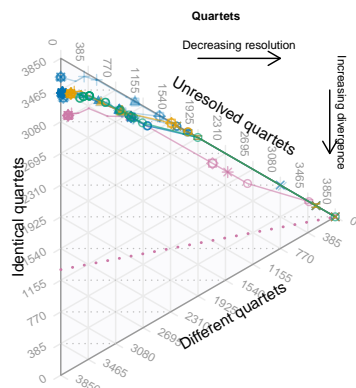
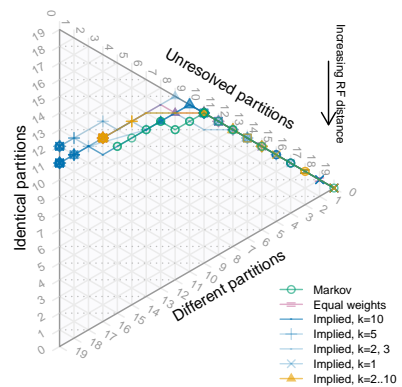




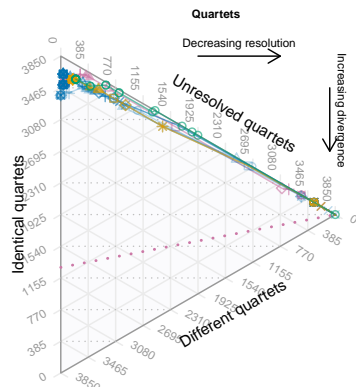
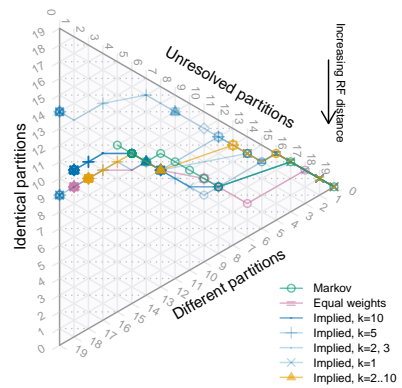
Dataset 85: CI=0.27



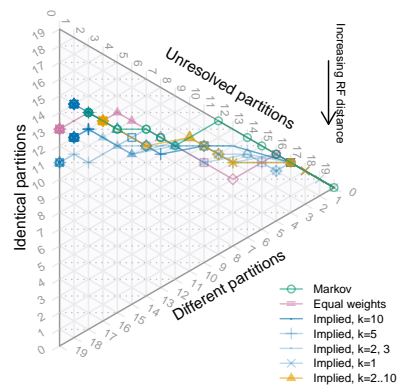
Dataset 86: CI=0.27

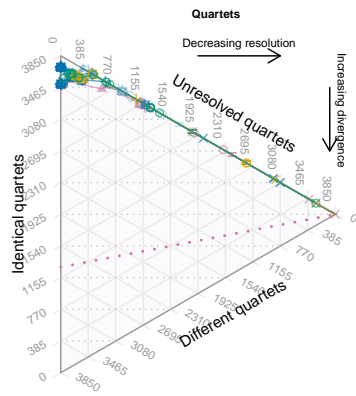


Dataset 87: CI=0.23

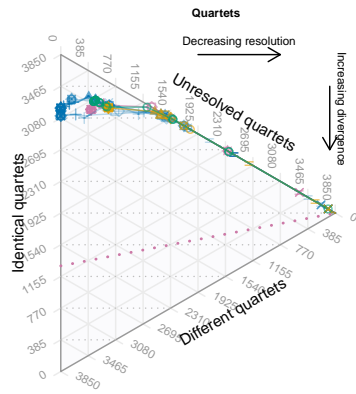
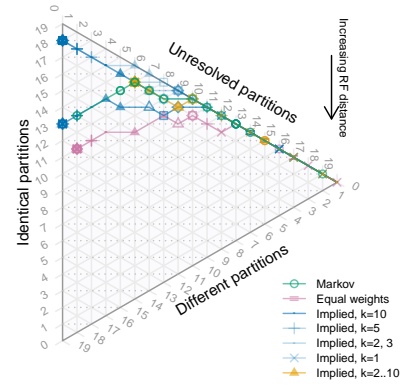
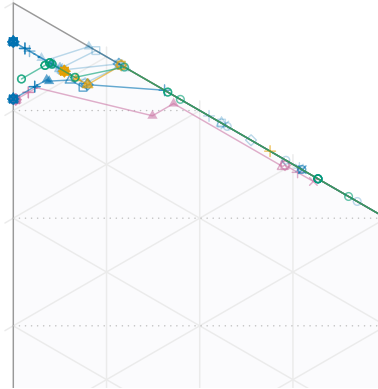


Dataset 88: CI=0.25

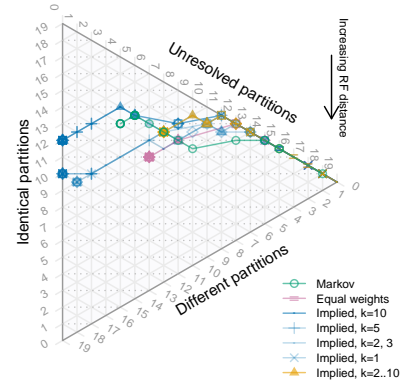
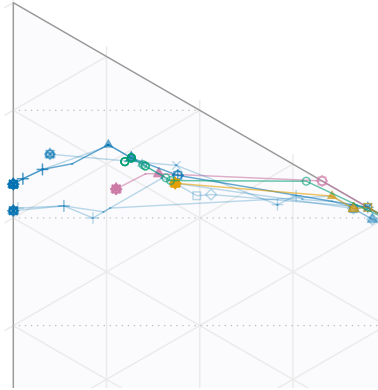




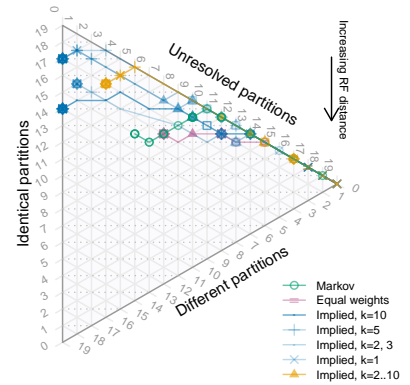
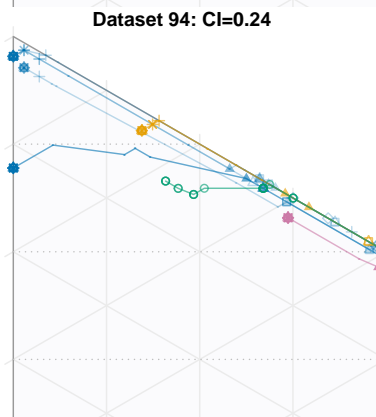
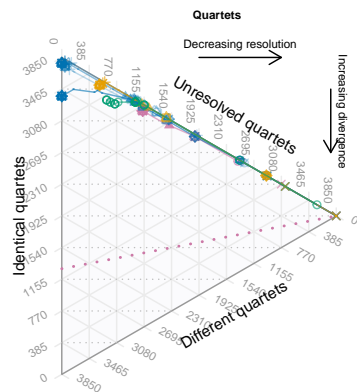
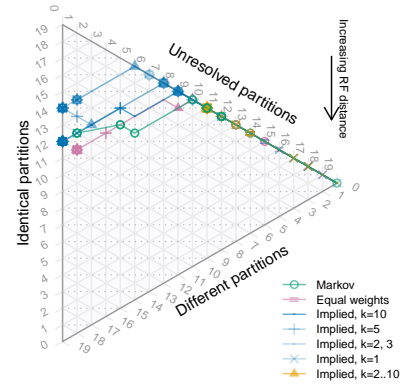
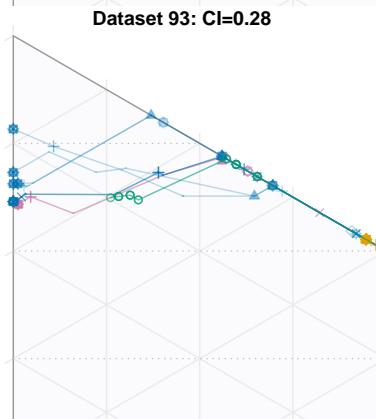
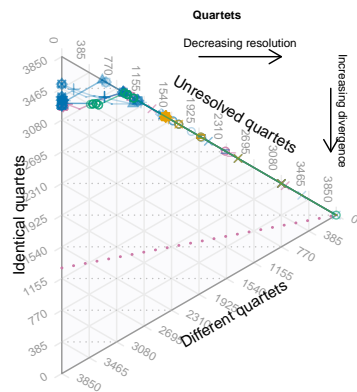
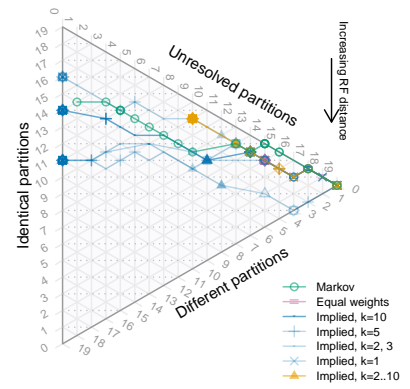
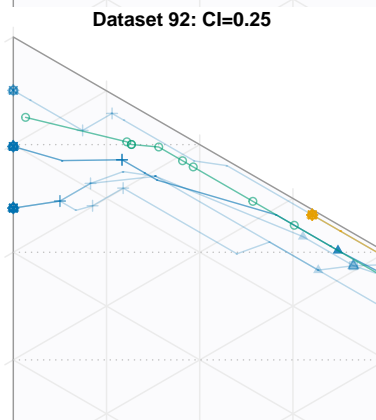
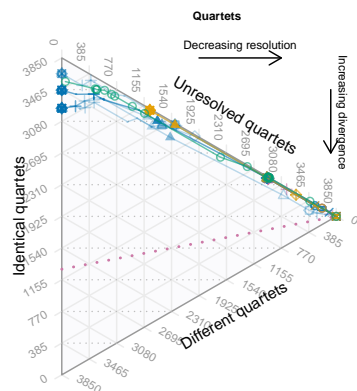
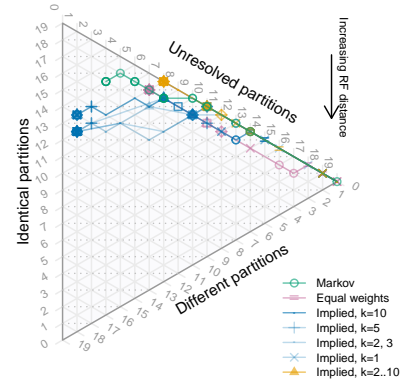
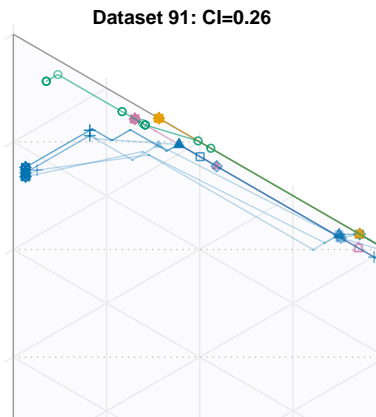
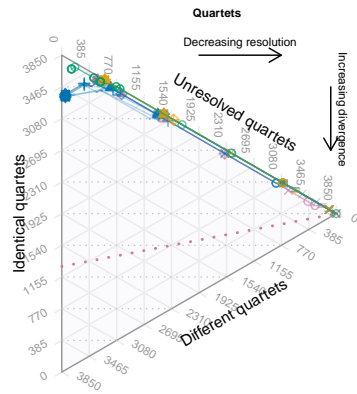
Dataset 89: CI=0.27

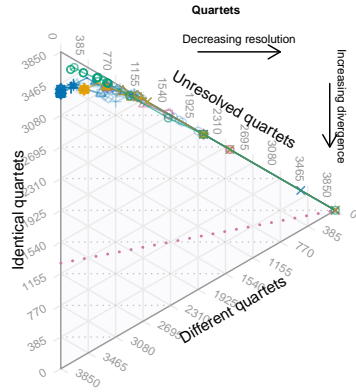


Dataset 90: CI=0.26

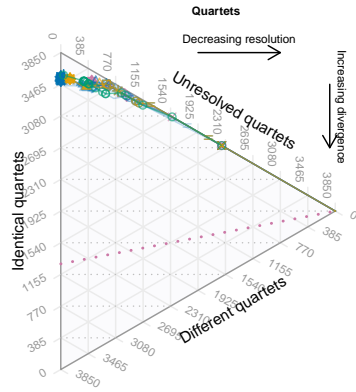
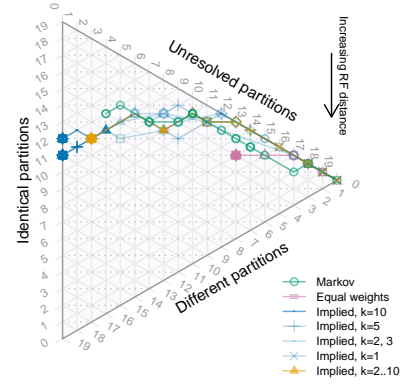


0.11 Trees 91–100

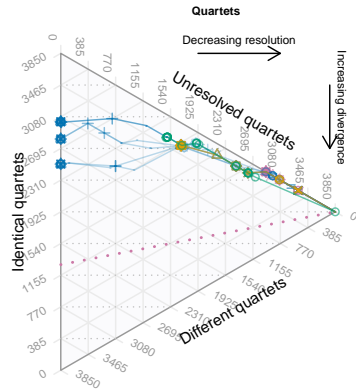
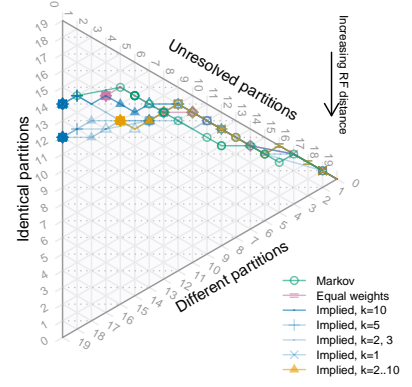




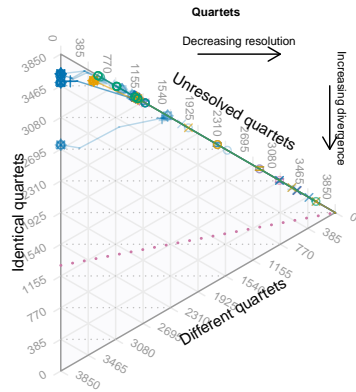
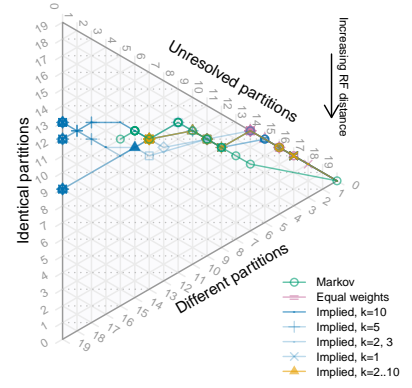
Dataset 95: CI=0.24



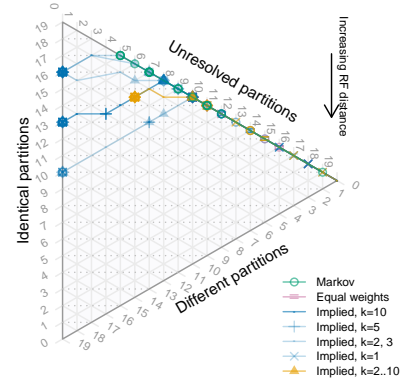
Dataset 96: CI=0.26

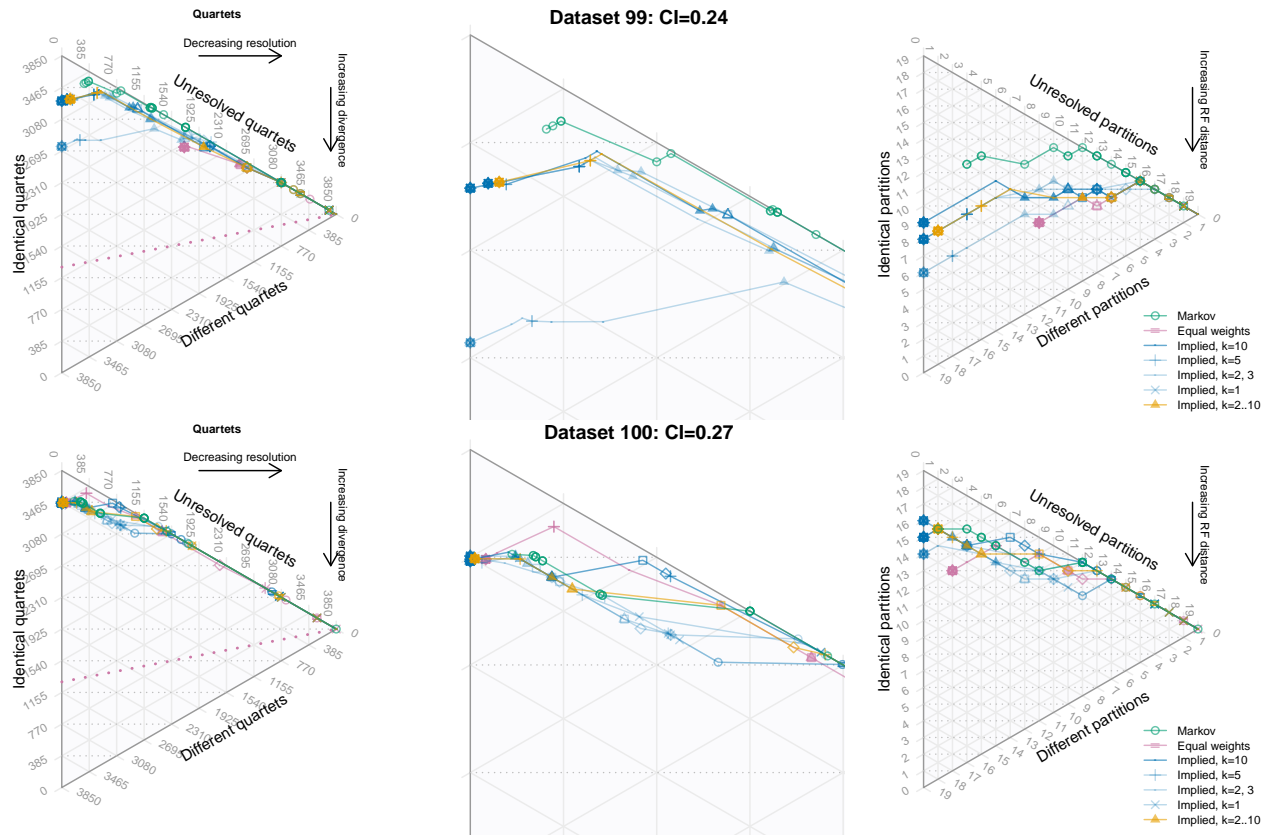


Dataset 97: CI=0.27



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. In press. Bayesian and parsimony approaches reconstruct informative trees from simulated morphological datasets. *Biology Letters*; preprint at *BioRxiv* (doi:10.1101/227942)