Optimal selection of expert forecasts with integer programming

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Highlights

- We propose a forecast combination method that exploits the forecast combination puzzle.
- Rather than averaging over all forecasts, our method optimally selects forecasts for averaging.
- The problem of optimal selection is solved using integer programming, a solution approach that has witnessed astonishing advancements.
- We apply this new method to forecasts of real GDP growth and unemployment from the European Central Bank Survey of Professional Forecasters.
- The results show that it is optimal to select only a small number of the available forecasts and that averaging over these small subsets almost always provides performance that is superior to averaging over all forecasts.
- Importantly, this new method is consistently one of the best performers when evaluated against a wide range of alternative forecast combination methods.