Cormen, T. H., Leiserson, C. E., Rivest, R. L., and Stein, C. (2009). Introduction to algorithms. MIT press, Cambridge, Massachusetts, 3 edition.

Garey, M. R. and Johnson, D. S. (1979). Computers and intractability, volume 174. freeman San Francisco.

PT:

Park, J. and Kim, B.-I. (2010). The school bus routing problem: A review. European Journal of Operational Research, 202(2):311–319.

Bektas, T. and Elmastas, S. (2007). Solving school bus routing problems through integer programming. Journal of the Operational Research Society, 58(12):1599–1604.

Bogl, M., Doerner, K. F., and Parragh, S. N. (2015). The school bus routing and scheduling problem with transfers. Networks, 65(2):180–203.

Brandinu, G. and Trautmann, N. (2014). A mixed-integer linear programming approach to the optimization of event-bus schedules: a scheduling application in the tourism sector. Journal of Scheduling, 17:621–629.

Gintner, V., Kliewer, N., and Suhl, L. (2005). Solving large multiple-depot multiple-vehicle-type bus scheduling problems in practice. OR Spectrum, 27:507–523.

Kliewer, N., Mellouli, T., and Suhl, L. (2006). A time–space network based exact optimization model for multi-depot bus scheduling. European Journal of Operational Research, 175(3):1616–1627.

Electric:

Perumal, S. S., Lusby, R. M., and Larsen, J. (2022). Electric bus planning & scheduling: A review of related problems and methodologies. European Journal of Operational Research, 301(2):395–413.

Ridepooling:

Schulz, A. and Pfeiﬀer, C. (2024). Using fixed paths to improve branch-and-cut algorithms for precedence-constrained routing problems. European Journal of Operational Research, 312(2):456–472.

Definition von ridepooling: Vansteenwegen, P., Melis, L., Aktas, D., Montenegro, B. D. G., Vieira, F. S., and Sorensen, K. (2022). A survey on demand-responsive public bus systems. Transportation Research Part C: Emerging Technologies, 137:103573

IN Cities: Pfeiﬀer, C. and Schulz, A. (2022). An alns algorithm for the static dial-a-ride problem with ride and waiting time minimization. Or Spectrum, 44(1):87–119.

Rural: Johnsen, L. C. and Meisel, F. (2022). Interrelated trips in the rural dial-a-ride problem with autonomous vehicles. European Journal of Operational Research, 303(1):201–219.

DARP:

Psaraftis, H. N. (1980). A dynamic programming solution to the single vehicle many-to-many immediate request dial-a-ride problem. Transportation Science, 14(2):130–154.

Borndorfer, R., Grotschel, M., Klostermeier, F., and Kuttner, C. (1999). Telebus Berlin: Vehicle scheduling in a dial-a-ride system. Springer.

Solution approaches:

Three-index formulation: Cordeau, J.-F. (2006). A branch-and-cut algorithm for the dial-a-ride problem. Operations research, 54(3):573–586.

Two-index formulation: Ropke, S., Cordeau, J.-F., and Laporte, G. (2007). Models and branch-and-cut algorithms for pickup and delivery problems with time windows. Networks: An International Journal, 49(4):258–272.

Restricted fragments based formulation: Rist, Y. and Forbes, M. A. (2021). A new formulation for the dial-a-ride problem. Transportation Science, 55(5):1113–1135.

Event based formulation: Gaul, D., Klamroth, K., Pfeiﬀer, C., Stiglmayr, M., and Schulz, A. (2025). A tight formulation for the dial-a-ride problem. European Journal of Operational Research, 321(2):363–382.

Gaul, D., Klamroth, K., and Stiglmayr, M. (2022). Event-based milp models for ride-pooling applications. European Journal of Operational Research, 301(3):1048–1063.

Line-based (semi-fexible): Reiter, K., Schmidt, M., and Stiglmayr, M. (2024). The line-based dial-a-ride problem. arXiv preprint arXiv:2409.08860.

Semi-flexible:

Errico, F., Crainic, T. G., Malucelli, F., and Nonato, M. (2013). A survey on planning semi-flexible transit systems: Methodological issues and a unifying framework. Transportation Research Part C: Emerging Technologies, 36:324–338.

MAST:

Quadrifoglio, L., Dessouky, M. M., and Palmer, K. (2007). An insertion heuristic for scheduling mobility allowance shuttle transit (mast) services. Journal of Scheduling, 10:25–40.

Qiu, F., Li, W., and Zhang, J. (2014). A dynamic station strategy to improve the performance of flex-route transit services. Transportation Research Part C: Emerging Technologies, 48:229–240.

Pei, M., Lin, P., and Ou, J. (2019). Real-time optimal scheduling model for transit system with flexible bus line length. Transportation Research Record, 2673(4):800–810.

Kombi:

Integrated DARP: Hall, C. H., Andersson, H., Lundgren, J. T., and Varbrand, P. (2009). The integrated dial-a-ride problem. Public Transport, 1:39–54.

Kim, M. E. and Schonfeld, P. (2014). Integration of conventional and flexible bus services with timed transfers. Transportation Research Part B: Methodological, 68:76–97.

Mathematical Modelling of bus scheduling problems:

Heuristics: Gintner, V., Kliewer, N., and Suhl, L. (2005). Solving large multiple-depot multiple-vehicle-type bus scheduling problems in practice. OR Spectrum, 27:507–523.

Constraint Programming: De Silva, A. (2001). Combining constraint programming and linear programming on an example of bus driver scheduling. Annals of Operations Research, 108(1):277–291.

Survey: Bunte, S. and Kliewer, N. (2009). An overview on vehicle scheduling models. Public Transport, 1(4):299–317.

Crew scheduling:

Alfares, H. K. (2004). Survey, categorization, and comparison of recent tour scheduling literature. Annals of Operations Research, 127:145–175.

Berthold, L., Fliedner, M., and Schulz, A. (2024). A shift scheduling model for ridepooling services. OR Spectrum, pages 1–25.

Boyer, V., Ibarra-Rojas, O. J., and Rıos-Solıs, Y.A. (2018). Vehicle and crew scheduling for flexible bus transportation systems. Transportation Research Part B: Methodological, 112:216–229

Perumal, S. S., Larsen, J., Lusby, R. M., Riis, M., and Sørensen, K. S. (2019). A matheuristic for the driver scheduling problem with staﬀ cars. European Journal of Operational Research, 275(1):280–294

Julia & JuMP & HiGHS Solver:

Bezanson, J., Edelman, A., Karpinski, S., and Shah, V. B. (2017). Julia: A fresh approach to numerical computing. SIAM review, 59(1):65–98.

Lubin, M., Dowson, O., Dias Garcia, J., Huchette, J., Legat, B., and Vielma, J. P.(2023). JuMP 1.0: Recent improvements to a modeling language for mathematical optimization. Mathematical Programming Computation.

Huangfu, Q. and Hall, J. A. J. (2018). Parallelizing the dual revised simplex method. Mathematical Programming Computation, 10(1):119–142.