



**POLITECNICO
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SEMINAR

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Integrating Resource and Revenue Management Concerns into Service Network Design

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Consolidation-based systems and carriers, e.g., railroads, less-than-truckload motor carriers, intermodal maritime and land transportation, and postal services, provide a significant part of the transportation of goods. They offer timely and economical services by moving the shipments of many different shippers within the same vehicle or convoy. They are also key elements of the new organizational, and business, models proposed for transportation and logistics such as City Logistics and the Physical Internet. Selecting how to provide consolidation-based services, in terms of routes, schedules, capacities, etc., is called the service network design problem. Recent developments in this area target the explicit integration of resource, e.g., vehicle or crews, and revenue management concerns into the formulation, increasing the accuracy of the methodology as well as the modelling and algorithmic challenges. We discuss the issues, identify the challenges, present recent modelling and algorithmic developments, and conclude with research perspectives and challenges.