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Research Topics

- ✓ Flow-level QoS-aware Resource Allocation at MAC layer
- ✓ Distributed Resource Allocation in Wireless Networks
 - Wi-Fi
 - Sidelink (applied to V2V/V2P/V2I)
- ✓ Cross-layer System-level Orchestration for Multi-flow Resource Allocation



Open Questions

- Indoor Coverage at the Network Edge

Despite advances in edge connectivity, coverage inside deep indoor areas (e.g., underground malls, large stores) often still drops to EDGE or no service. How can we realistically address this persistent gap?

- Role of Distributed V2X (D2D)

Commercial V2X is evolving around V2I/V2N, while distributed sidelink (sensing-based SPS) faces major limitations and lacks a revenue model. Will D2D-based V2X remain only a fallback, or can it find a real role in deployment?

- Slice Granularity in System-level Orchestration

3GPP defines flow-level QoS, while operators manage resources via slicing and virtualization. How fine-grained should slice granularity be, and which parameters should be shared vs. isolated for realistic large-scale deployment?