Command Theory In Multi-Agent Systems

| Sources: o | Confidence: o.6 *

Alignment: N/A Theory Depth: N/A Clarity: N/A {% if rubric_total_score > o %} | Rubric Score: o.o/100{% endif %}

Disclaimer: This report synthesizes theoretical frameworks from peer-reviewed sources and preprint archives. Claims are mapped to evidence with explicit validation methods (CEM grid). Operational assumptions (bounded-rationality, adversarial comms) are explicitly stated. This is a research brief, not a validated system deployment.

Executive Summary

Outline

- Foundations
- Formalization
- Mechanisms
- Applications
- Limits & Open Questions
- Synthesis & Current Developments
- Sources

Foundations

Formalization

Mechanisms

Applications

Limits & Open Questions

Synthesis & Current Developments

Sources

Generated: 2025-10-30T18:11:40.228551 | Word Count: 4057

Research Roadmap

- **Phase 1 (Theory):** Formalize claims, extend proofs, validate against canonical results
- **Phase 2 (Simulation)**: Implement stress tests, sweep parameter spaces, measure convergence/scaling
- **Phase 3 (Empirical)**: Deploy in controlled environments, collect field data, validate predictions
- **Phase 4 (Integration)**: Operationalize with human-in-loop, adversarial hardening, production deployment

Confidence Methodology: Confidence = coverage × reviewer_count × evidence_diversity, where coverage reflects source quality, reviewer_count reflects expert consensus, and evidence_diversity reflects source type distribution (anchor vs preprint).