ANDYGROVE.SYSTEMS CONTINUING PROFESSIONAL UPSKILLING BRIEF // PP-02 (arXiv:2609.22951)
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Primary Source URL: https://arxiv.org/abs/2609.22951

TITLE: AgentRouter: Heterogeneous Model Routing for Cost-Optimal Multi-Step
  Agentic Workflows
AUTHORS: Rudrendu Kumar Paul, Sourav Nandy (Sep 2026 * ICML AgenticUQ)
PILLAR: STEP-LEVEL COST ROUTING
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1. EMPIRICAL & MATHEMATICAL FINDING FOR CONTINUING PROFESSIONAL UPSKILLING:
  Trains a <5ms 12M-parameter trajectory router across 50,000 steps (GAIA,
  SWE-bench, WebArena, ToolBench) and 4 model tiers, cutting inference cost by ~72%
  while retaining 97.3% of frontier-only performance (vs. 31% for single-turn
  RouteLLM).
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2. ACTIONABLE COO & INDUSTRIAL ENGINEERING PRODUCTION RULE:
  Route per trajectory step (parsing/tool-formatting -> small tier; ambiguous
  synthesis -> frontier tier), never one frontier model per whole workflow.
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3. SELF-STUDY & TEAM UPSKILLING INTEGRATION (GOOGLE CLASSROOM & COLAB):
  * Interactive Calculators (L0-L3 Wilson TRM & L = lambda*W): https://andygrove.systems/calculators
  * Runnable Python Queueing & Routing Colab Lab: https://andygrove.systems/colab.ipynb
  * 1-Page Agent Line Audit Specimen: https://andygrove.systems/audit
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NODE 01 (Part-Time Remote IE/OR/BizOps Pods, $20-45/hr): https://andygrove.systems/#apply
NODE 02 (COO Office Audit Desk): mailto:output@andygrove.systems
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