

- No failure cases or sensitivity analysis
- No ill-conditioned problems

Required Fix:

- Add large-scale examples ($n \geq 50$)
- Compare with modern commercial and research solvers
- Report ALL timing information consistently
- Provide error bounds and convergence criteria
- Include failure mode analysis

3) "Unified Framework" Claim Requires Proof

Location: Contribution (ii), line 166

Problem: Claims to "handle all convex-concave RO problems" but:

- What about conic RO (second-order cone, semidefinite)?
- What about integer/mixed-integer RO?
- What about distributionally robust optimization (DRO)?
- Line 193 claims "includes all cases in [Gorissen 2015, Table 1]" but that table has only 6 problem types

Required Fix: Precisely characterize the problem class this method CAN and CANNOT solve.

4) Digital Implementation Not Addressed

Location: Entire paper (continuous-time focus)

Critical Gap: How to implement these continuous-time dynamics in practice?

Unanswered Questions:

- Which ODE solver? (ode15s mentioned line 1017 but no analysis)
- Step size selection?
- Discretization error bounds?
- Stopping criteria? (When is solution "converged"?)
- Numerical stability for stiff systems?
- Projection operator $[\cdot]^+$ implementation details?

Required Fix: Add entire section on digital implementation including discretization analysis, numerical stability, and stopping criteria.

5) Literature Review Gaps

Missing Critical Citations:

- **Bilevel optimization:** Vicente & Calamai (1994), Dempe (2002), Bard (1998) - directly relevant to Lemma 1
- **Continuous-time optimization:** Helmke & Moore (1994), Schropp & Singer (2000), Polyak (1987)
- **Modern primal-dual:** Chambolle-Pock (2011), Nesterov primal-dual methods
- **Projected gradient flows:** Extensive literature missing

Consequence: Cannot assess true novelty without proper literature positioning.

Required Fix: Comprehensive literature review section comparing with bilevel optimization, continuous-time optimization, and modern primal-dual methods.

MINOR ISSUES (Presentation and Clarity)

resume

1) Notation Inconsistencies

- Line 202: $i \in [N]$ definition inconsistent with usage
- Bold \mathbf{x} vs regular x used interchangeably
- Inconsistent use of \mathbb{R} vs \mathbb{R}

2) Figure Quality

- Figures 1-4: Low resolution, hard to read labels
- Figure colors and trajectories not clearly explained in captions

3) Writing Quality Issues

- Line 146: "may be computationally more expensive" - vague, which approaches?
- Line 447: "quite non-trivial" - subjective, quantify the difficulty
- Line 1015: Only THREE examples for a major contribution

4) Incomplete Proofs in Appendix

- Lemma 2 proof (line 541): "Details omitted" for projected dynamics construction
- Final convergence arguments in several proofs are hand-wavy