

Response: The remark clarifies: *“under the convexity assumptions stated below, the uncertainty sets \mathcal{U}_i remain compact.”* Continuity is ensured by Assumption 1 which requires f_i and h_i to be C^1 functions.

Minor Comment 8: *Assumption 3 states that $c_i > 0$, which implies that the problem formulation presented in (2) is not recovered. Since this assumption is introduced for technical reasons, it may need to be relaxed to ensure consistency with formulation (2).*

Response: Section VI addresses this rigorously. Theorem 2 proves that as $\varepsilon \rightarrow 0$ (where $c_i = \varepsilon$), solutions converge to the original problem’s optimum:

“Section VI analyzes the $c_i \rightarrow 0$ limit rigorously.”

Minor Comment 9: *In the numerical experiments, the constraints $f_i(x, u_i)$ are linear in u_i . Did the authors observe similar results when dealing with problem such that the constraints are not necessarily linear in u_i ?*

Response: Our framework is not limited to linear constraints in u_i . Example B in Section VII demonstrates a robust nonlinear optimization problem with highly nonlinear constraints of the form $e^{u_j^2} + u_j e^{1/u_j} \leq \rho_j$. No closed-form robust counterpart exists for this problem, yet our dynamics converge to the exact solution.