

Erratum to: Parameterizing mixture models with generalized moments

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1. In Sect. 3.1, the second sentence is “However since the error $e_r(Q)$ depends on the unknown mixing distribution Q , instead we aim to minimize an upper bound of $e_r(Q)$ instead.” The second “instead” should be deleted.
2. In Sect. 4.1, the first sentence below Definition 8 is “According to Carathéodory’s theorem, for each vector $\mathbf{m} \in \text{conv}(\Gamma_{r+1})$, there exists a convex representation of \mathbf{m} by $\{u_i(\theta)\}_{i=0}^r$ with $J < r + 1$.” The less than sign in “ $J < r + 1$ ” should be changed to the less than or equal to sign, i.e., “ $J \leq r + 1$ ”.
3. In Sect. 4.1, the second sentence below the second paragraph in Example 1 is “The boundary vectors of $\text{conv}(\Gamma_3)$ are either $\mathbf{u}(\theta) \in \mathbb{R}^3$ or $(1 - \alpha)\mathbf{u}(0) + \alpha\mathbf{u}(1)$, where $0 < \alpha < 1$.” Here “ $(1 - \alpha)\mathbf{u}(0) + \alpha\mathbf{u}(1)$ ” should be changed to “ $(1 - \alpha)\mathbf{u}(0) + \alpha\mathbf{u}(25)$ ”.
4. In Sect. 4.1, the third sentence of the second paragraph in Example 1 is “Therefore, the index of a boundary vector is either 1 or $3/2$; see Theorem 3.” Here “ $3/2$ ” should be changed to “ $1/2$ ”.
5. In Fig. 7, the axis labels in the panel (a) are $u_0 = 1$, $u_1 = \theta - 1$, $u_2 = (\theta - 1)^2$. The correct axis labels are $u_0(\theta) = 1$, $u_1 = (\theta - 12.5)$ and $u_2 = (\theta - 12.5)^2$; see Fig. 7.

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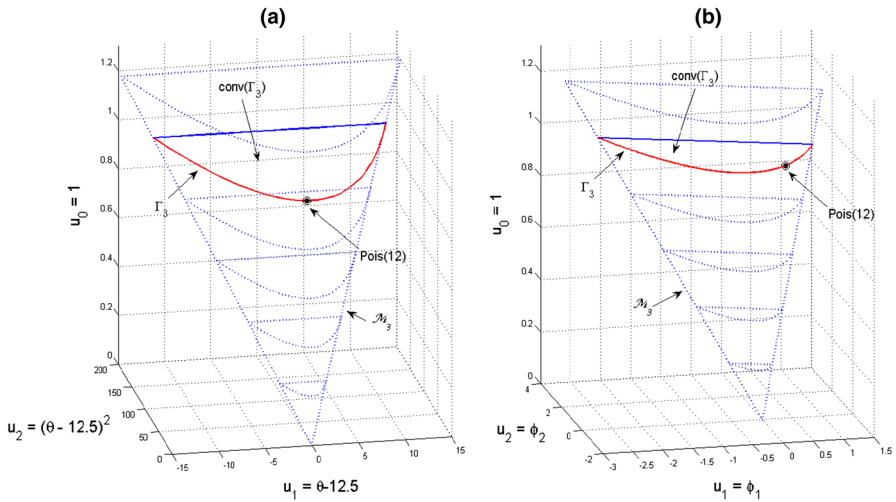


Fig. 7 Plots of the moment cones induced by **a** $\{(\theta - 12.5)^i\}_{i=0}^2$; and **b** $\{\phi_i(\theta)\}_{i=0}^2$ for the mixture of Poisson

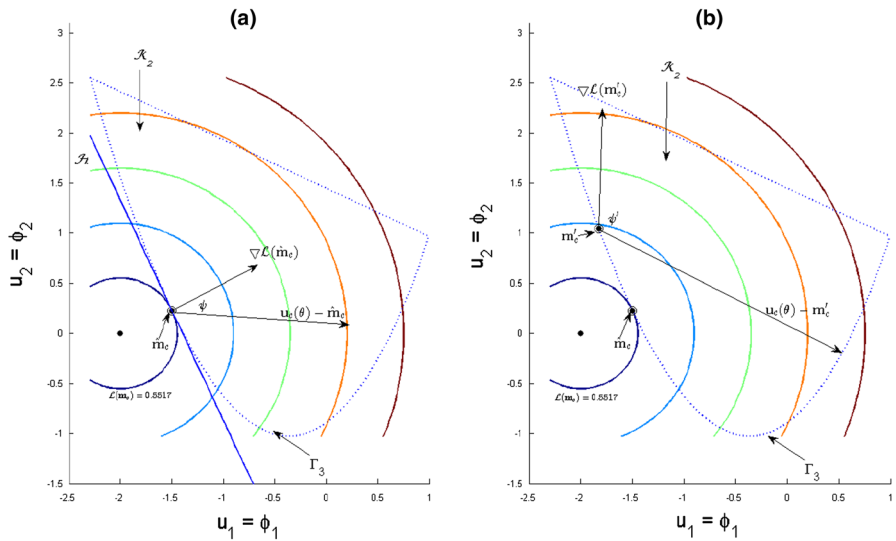


Fig. 8 Plots of \mathcal{K}_2 induced by $\{\phi_i(\theta)\}_{i=0}^2$ and a visual interpretation of Theorems 4 and 5

6. In Sect. 4.2, the first sentence of the paragraph above Theorem 4 “Since the optimization problem (12) is convex, its solution \hat{m}_c is unique and on the boundary of \mathcal{K}_r .” should be changed to “Since the optimization problem (12) is convex, its solution \hat{m}_c is unique and in \mathcal{K}_r .”
7. In Fig. 8, the legends with ℓ should be changed to \mathcal{L} ; see Fig. 8.