

# On the generalized Jacobian of the inverse of a Lipschitzian mapping

- M. Fabian (Mathematical Institute, Academy of Science of Czech Republic, Prague)
- **Jean-Baptiste Hiriart-Urruty** (Institut de Mathématiques, Université Paul Sabatier, 118 route de Narbonne, Toulouse)
- Edouard Pauwels (Institut de Recherche en Informatique, Université Paul Sabatier, 118 route de Narbonne, Toulouse)

**Keywords:** Inverse function theorem, Lipschitzian mapping, Generalized Jacobian.

**Abstract:** The objective of this short note is to provide an estimate of the generalized Jacobian of the inverse of a Lipschitzian mapping when CLARKE's inverse function theorem applies. Contrary to the classical  $\mathcal{C}^1$  case, inverting matrices of the generalized Jacobian is not enough. Simple counterexamples show that our results are sharp.