

If for $\lambda \neq 0$ we take $\omega_C(\delta_{C+\lambda F}) \neq 0$, then $B(C, \lambda F) = 4n\pi$, $n \in \mathbf{Z}$, $\forall \lambda \in \mathbb{R} \setminus 0$, and since $B(C, F) \neq 0$, this is impossible to satisfy for all $\lambda \in \mathbb{R} \setminus 0$, so we conclude that $\omega_C(\delta_{C+\lambda F}) = 0 \quad \forall \lambda \notin 4\pi\mathbf{Z}/B(F, C)$, hence $\omega_C(\delta_{\lambda F}) = 0 \quad \forall \lambda \in (0, 4\pi/B(F, C))$. Since $\omega_C(\delta_0) = 1$, this means that ω_C is not regular, which contradicts $\omega \in \mathcal{P}_R$, and so the assumption $\exists C \in \mathcal{Q} \setminus 0$ such that $1 \in P\sigma_{\mathcal{H}^\pi}(\pi(\delta_C))$ must be wrong. \square

M. Puta: 'On the Geometric Prequantization of Poisson Manifolds', *Lett. Math. Phys.* **15**, 187–192 (1988). (Received: 20 September 1988.)

Recently, Professor A. Weinstein has pointed out to me that there is a mistake in my paper. The situation is the following. In Definition 3 (p. 189), condition (ii) implies that the Poisson structure Λ_0 is a trivial one. Indeed, Γ_0 is a Lagrangian submanifold of Γ and then for each $f, g \in C^\infty(\Gamma_0)$ we have $i^*\omega(X_f, X_g) = 0$, or, equivalent, $\Lambda_0(df, dg) = 0$, where $\Gamma_0 \hookrightarrow \Gamma$ is the canonical inclusion of Γ_0 in Γ . It follows that Λ_0 is trivial, i.e. $\Lambda_0 = 0$.

To avoid this situation, instead of Definition 3, we must consider the following one: A Poisson manifold (Γ_0, Λ_0) is quantizable if its symplectic realization (Γ, ω) is a quantizable one. Under this definition, our Example (p. 189) remains true and the construction of the Hermitian line bundle $(L^0, \pi_0, \Gamma_0, \hat{\nabla})$ also holds. Having the same motivation as for the symplectic case, we can construct the differential operator δ^0 (p. 191, line 7) and then points (i), (iii), (iv) of Theorem 2 (p. 191) still stand. Unfortunately, point (ii) of the theorem is violated and, therefore, our operator δ^0 is not a true prequantum operator. Theorem 3 (p. 192) also drops.

It is an open problem to decide if we can restrict our considerations to a Poisson subalgebra of $C^\infty(\Gamma_0)$ such that the above condition (ii) is satisfied.

For the particular case $\Lambda_0 = 0$. Theorem 2 and 3 are verified and, in this case, δ^0 is a true prequantum operator.