Corrigendum:G.Gallavotti: JMP 60:062901 (2029)
Quasi periodic Hamiltonian Motions, Scale Invariance, Harmonic Oscillators

The corrections (commented in italics) refer to the published version. Most of them were already included in the arxiv:1810.07786 v.4.

1) before Eq.(2.4): into **should be** , setting $J_1 = J_0 + \frac{1}{2}\boldsymbol{\partial}^2_{\mathbf{a}} f_0(\mathbf{a})$, into

2) In Eq. (2.4) a term **should be** added to line (0) and subtracted from line (3): *i.e.* in line (0): replace J_0 by J_1 **AND** in line (2): subtract $\frac{1}{2}\boldsymbol{\partial}^2_{\mathbf{a}}\overline{f}_0(\mathbf{a})$
i.e. add one term to line (0) and subtract it from line (2) (this is the main error: J_1 is now a matrix, and although the formula does not change its lines are separately estimated in Sec.5 and lead to correct few exponents).

3) line 5 after (2.4): $O(\varepsilon_0(\mathbf{A}')^2)$ **should be** $O(\varepsilon_0(\mathbf{A}')^3)$

4) l.3 before Eq.(4.4): while $J_n = J_0$. **should be** while $\frac{1}{2}J_0 < J_n < 2J_0$.

5) l.1 after Eq.(4.14): *insert*: If the constant J_0 is, instead, a matrix J with $\frac{1}{2}J_0 < J < 2J_0$, all preceding inequalities remain valid with $C_0 J_0 \varrho_0 < \frac{1}{2}$ and $\varepsilon_0 J_0^{-1}\varrho_0^{-1} < \frac{\chi}{2}$ replacing $C_0 J_0 \varrho_0 < 1$ and $\varepsilon_0 J_0^{-1}\varrho_0^{-1} < \chi$.

6) Eq.(5.1): J_0 **should be** J_1 **AND** Eq.(5.3): $(C_0\varepsilon_0\varrho_0^{-1})^3$ **should be** $(C_0\varepsilon_0)^3$

Changes 7-13 below refer to incorrect exponents in the bounds (5.4) and (5.5) due to the choice of a free parameter and or to the above item 2. The corrections now defer, for clarity, the parameter choice (denoted λ) until the last step

7) line 1 after (5.3): $\eta_0^{\frac{1}{2}}$ **should be** $\eta_0^{1-\lambda}$ with $0 < \lambda < 1$

8) Eq. (5.4): η_0 **should be** $\eta_0^{2(1-\lambda)}$, **AND** Eq. (5.5): η_0 **should be** η_0^{λ}

9) line 1 before (5.6): for $\sigma = \frac{3}{2}$ **should be** for $\lambda = 2(1-\lambda) = \frac{2}{3}$ **AND** Eq. (5.6): η_0 **should be** $\eta_0^{2(1-\lambda)}$

10) After (5.6) and before "The result is.." insert the paragraph: "A further dimensional estimate on the matrix $J_1 = J_0 + \frac{1}{2}\boldsymbol{\partial}^2_a\overline{f}_0(\mathbf{a})$ in Eq.(2.4) is $J_0(1 - \overline{c}\theta_0) < J_1 < J_0(1 + \overline{c}\theta_0)$ (*e.g.* $\overline{c} = \ell^2$).

11) Eq. (5.7): in line 1 J_0 should be J_1; *some exponents change because of the above change of the free parameter (now fixed as $\lambda = \frac{2}{3}$): namely exponents $\frac{1}{2}, 2, \frac{1}{2}$ in lines 2 and 3* **should be** $\frac{1}{3}, \frac{5}{3}, \frac{1}{3}$ *respectively;*

12) line 1 before (5.8): $\mu \in (0,1)$ **should be** $\mu \in (0, \frac{2}{3})$ **AND** Eq. (5.8): $...\mu < 1$ **should be** $...\mu < \frac{2}{3}$, $\frac{1}{2}J_0 < J_n < 2J_0$

13) l.1,2 after Eq.(5.9): $\frac{1}{2} \Rightarrow \frac{1}{3}$ **AND** in Eq.(5.10): $\frac{1}{2} \Rightarrow \frac{1}{3}$, $J_0 \Rightarrow J_n$.

14) line 2 in Eq.(A2): $|\mathbf{a}_0|$ **should be** $\mu\varrho_0$; in line 3 amd in Eq.(A3): $\theta_0 \Rightarrow 2\theta_0$

The conclusions do not change. I realized the errors (2.4), (5.4),(5.5) while writing a code following the proof.