and

and

and

A. GANDINI, "Higher Order Time-Dependent Generalized Perturbation Theory," Nucl. Sci. Eng., **67**, 91 (1978).

In the example of Appendix B, Eq. (B.23) on p. 106 should read

$$\overline{\psi}^*/a = -v(t_F - t_I) \left(\frac{L}{2D}\right)^2 \left(L + |x - x_B|\right) \exp(-|x - x_B|/L) \quad .$$

Equations (B.24), (B.25), and (B.26) remain unaltered.

The exact value of  $\delta \overline{Q}/\overline{Q}$ , obtained by using Eq. (B.18) directly and appearing immediately following Eq. (B.26), should be -0.38 instead of -0.29. This change does not affect the general conclusions on the accuracy of the second-order formulation, since its value, -0.33, lies midway between the above original and corrected quantities.

As opposed to what is stated in Sec. VIII of the earlier publication, it also seems possible to explicitly account for direct effects to higher order formulations, i.e., for variations of vectors  $h^+$  and h, simply by replacing the term  $\langle c^{*T}M_{/1}c \rangle$  of Eqs. (20) and (21) with the sum

$$\left[\langle \boldsymbol{c}^{*T}\boldsymbol{M}_{/1}\boldsymbol{c}\rangle + \langle \boldsymbol{h}_{/1}^{+T}\boldsymbol{c}\rangle\,\delta(t-t_F) + \langle \boldsymbol{c}^{*T}\boldsymbol{h}_{/1}\rangle\delta(t_0-t)\right] ,$$

where

$$h_{/1}^+ = \partial h^+ / \partial p_{j_1}$$

$$h_{/1} = \partial h / \partial p_{j_1}$$
.

(Parameter  $p_{j_1}$  may also represent, in particular, components of vector  $h^+$  or h.) The linear forms

$$\langle [c^{*T}M_{/1} + \delta(t - t_F)h_{/1}^{+T}]c \rangle$$

$$\langle c^{*T}[M_{/1}+h_{/1}\delta(t_0-1)]\rangle$$

should replace

 $\langle (\boldsymbol{c}^{*T}\boldsymbol{M}_{/1})\boldsymbol{c}\rangle$ 

$$\langle c^{*T}(M_{/1}c) \rangle$$
,

respectively. This amounts to adding to the right side of Eqs. (24) and (27) the terms  $h_{11}^{+}(\boldsymbol{\theta})\delta(t'-t_F)$  and  $h_{11}^{+}(\boldsymbol{\theta})\delta(t-t_F)$ , respectively, and adding to the right side of Eqs. (32) and (30) the terms  $h_{11}(\boldsymbol{\theta})\delta(t'-t_0)$  and  $h_{11}(\boldsymbol{\theta})\delta(t-t_0)$ , respectively.

Analogous procedures can be considered for direct effects on quantities  $Q^+$ ,  $\overline{Q}$ ,  $\overline{Q}^+$ ,  $\overline{\overline{Q}}$ , and  $\overline{\overline{Q}}^+$ . Besides, assuming that  $h_{11}^+$ and  $h_{11}$  (as well as  $M_{11}$ ) represent terms independent of parameters  $p_i$ , the rest of the formalism remains unaltered.

Finally, in Eqs. (28) and (29), the coefficient  $\delta p_{i_2}$  on the right side should be removed.