The correct form of equation 4 is:

$$\begin{split} P_e(u,t+\Delta t_i) = & G_e(t+\Delta t,t) P_e(u,t) \\ &+ 2 \left\{ \delta \Delta t_i \right\} P_e(v,t) P_e(w,t) \\ &+ \left\{ \sigma \Delta t_i \right\} \bar{P}(v,t) P_e(w,t) \\ &+ \left\{ \sigma \Delta t_i \right\} P_e(v,t) \bar{P}(w,t) \\ &+ \left\{ \sigma \Delta t_i \right\} \bar{P}(u,t) E_e(t). \end{split}$$

The correct form of equation A.2 is:

$$\frac{\mathrm{d}}{\mathrm{d}t}\bar{E} = +\left\{\frac{N}{N-n}\sigma + \lambda\right\} (1-\bar{E})$$

$$-\left\{(\sigma + \delta + \frac{N-n_i}{N-1}\tau)(1-\bar{E})\right\}\bar{E}$$

$$-\left\{\sum_{f\in\mathcal{E}_i(S)} \frac{\tau}{N-1}(1-E_f)\right\}\bar{E}$$

$$\bar{E}(0) = 1.$$

The correct form of equation A.4 is:

$$\frac{\mathrm{d}}{\mathrm{d}t}\bar{G} = -\left\{\frac{N}{N-n}\sigma + \lambda\right\}\bar{G}$$

$$-\left\{(\sigma + \delta + \frac{N-n_i}{N-1}\tau)(1-2\bar{E})\right\}\bar{G}$$

$$-\left\{\sum_{f \in \mathcal{E}_i(S)} \frac{\tau}{N-1}(1-E_f)\right\}\bar{G}$$

$$\bar{G}(t,t) = 1.$$