

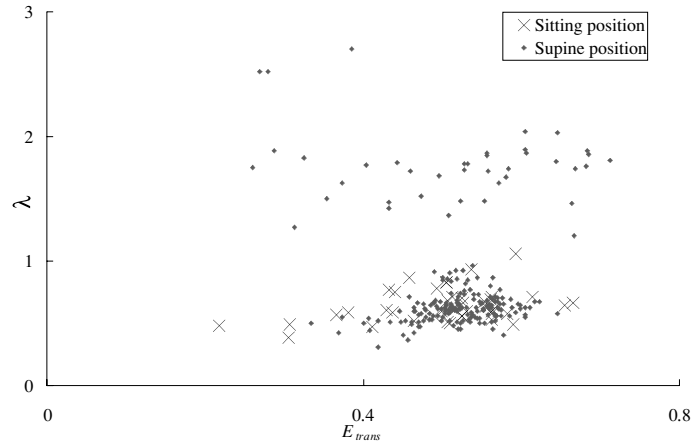
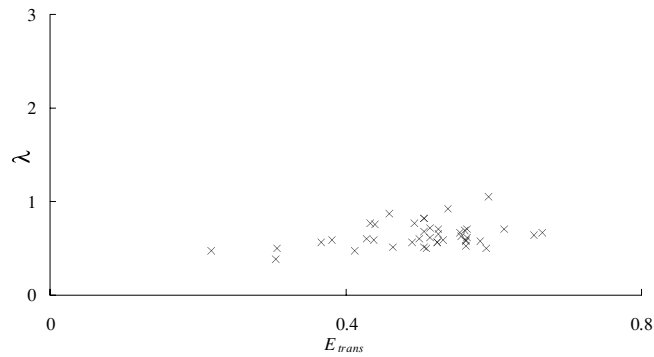
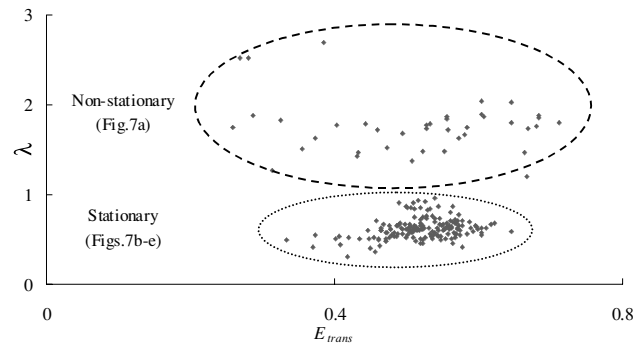


Fig. 5. An E_{trans} - λ diagram. $\times$ represent EGG data obtained with the subjects in the sitting position and $\bullet$ represent data for the supine position.



(a) Sitting



(b) Supine

Fig. 6. E_{trans} - λ diagrams for the data for the sitting position in (a) and for the supine position shown in (b). The obtained data (b) were classified into two cases, in stationary and non-stationary state. EGG data measured for 30 minutes after the first interval during supine position were projected onto the region upper the cluster of points for this E_{trans} - λ diagram, which would be reproduced in Fig. 7a.

accordance with the previous standard. It is considered that the EGG data are generated from the intermediate dynamics of deterministic and stochastic processes. On the other hand, there was no exception that Lyapunov exponents were positive without exception. Hence, sensitive dependence on initial conditions was observed in the attractors that were recomposed from the EGG data.

There were 2 clusters in the E_{trans} - λ diagram for the

supine position (Fig. 6b). All points in the E_{trans} - λ diagram for the sitting position were distributed around the lower cluster.

According to the analysis of the degree of determinism for the time series dynamics, EGG data obtained for 30 min after postural change were significantly different from the other EGG. Autonomic nervous system controls the gastric electrical activity, which can be measured by EGG. The