What is claimed is:

1. An activity feature extraction device that analyzes activity route data in which person movement trajectory information and time information are associated with each other, wherein

the activity feature extraction device is configured with a computer including an arithmetic device that executes a predetermined arithmetic process and a storage device that the arithmetic device can access,

the arithmetic device includes a spatial divergence calculation unit that calculates a spatial divergence representing a spatial difference between the activity route data,

the arithmetic device includes a temporal divergence calculation unit that calculates a temporal divergence representing a temporal difference between the activity route data,

the arithmetic device includes a spatiotemporal clustering unit that calculates an activity feature similarity from the spatial divergence and the temporal divergence, and clusters the activity route data using the calculated activity feature similarity, and

the arithmetic device includes an output generation unit that outputs information of a cluster generated by the spatiotemporal clustering unit,

wherein the temporal divergence calculation unit calculates the temporal divergence or the spatial divergence by taking into account speed information associated with the movement trajectory information, and

wherein the temporal divergence calculation unit multiplies the temporal divergence by the speed information to calculate a temporal divergence having the same dimension as the spatial divergence, or divides the spatial divergence by the speed information to calculate the spatial divergence having the same dimension as the temporal divergence.

2. The activity feature extraction device according to claim 1, wherein

the spatial divergence calculation unit determines a corresponding pair of observation points included in the movement trajectory information among the activity route data, and calculates the spatial divergence by sum of spatial differences between the corresponding pairs, and

the temporal divergence calculation unit calculates the temporal divergence based on a difference in the time information of the corresponding pair and movement speed at the observation points that form the corresponding pair.

3. The activity feature extraction device according to claim 1, wherein

the spatial divergence calculation unit calculates the spatial divergence using features of points where people pass or stay in the movement trajectory information.

4. The activity feature extraction device according to claim 3, wherein

the arithmetic device includes a feature extraction unit that extracts cluster attribute information of the cluster from facilities that the activity route data of the cluster passes through or stays at and transportation means used in the activity route data of the cluster.

5. The activity feature extraction device according to claim 4, wherein

the arithmetic device includes a person attribute input unit that acquires person attribute information of a user or a related person related to the user, and

the arithmetic device includes a belonging cluster calculation unit that calculates an attribute similarity between the person attribute information and the cluster attribute information, and calculates belonging cluster information that indicates a belonging probability of the user or the related person to the cluster.

6. The activity feature extraction device according

to claim 5, wherein

the arithmetic device includes a recommended spot extraction unit that extracts recommended spot information that matches an activity tendency of the user or the related person based on activity route data included in a cluster to which the user or the related person belongs.

7. The activity feature extraction device according to claim 6, wherein

the recommended spot extraction unit calculates a matching rate between the user or the related person and the recommended spot information based on activity route data included in the cluster to which the user or the related person belongs, and extracts the recommended spot information based on the calculated matching rate.

8. The activity feature extraction device according to claim 1, wherein

the arithmetic device includes an output device that outputs an activity feature display screen that displays the activity route data and information of the cluster in a superimposed manner on map information and time information displayed on a screen.

9. The activity feature extraction device according

to claim 4, wherein

an output device is provided that outputs an activity feature display screen that displays the activity route data and information of the cluster in a superimposed manner on map information and time information displayed on a screen, and further displays the cluster attribute information.

10. The activity feature extraction device according to claim 7, wherein

an output device is provided that outputs a spot recommendation screen that displays a location of the recommended spot information in a superimposed manner on map information displayed on a screen, and further displays a value determined based on the matching rate of the recommended spot information.

11. The activity feature extraction device according to claim 10, wherein

the recommended spot extraction unit calculates a mutual matching rate based on both the matching rate of the user with the recommended spot information and the matching rate of the related person with the recommended spot information, and

the output device displays the calculated mutual matching rate on the spot recommendation screen.

12. An activity feature extraction method executed by an activity feature extraction device that analyzes activity route data in which person movement trajectory information and time information are associated with each other, wherein

the activity feature extraction device is configured with a computer including an arithmetic device that executes a predetermined arithmetic process and a storage device that the arithmetic device can access, and

the activity feature extraction method includes,

a spatial divergence calculation step in which the arithmetic device calculates a spatial divergence representing a spatial difference between the activity route data,

a temporal divergence calculation step in which the arithmetic device calculates a temporal divergence representing a temporal difference between the activity route data,

a spatiotemporal clustering step in which the arithmetic device calculates an activity feature similarity from the spatial divergence and the temporal divergence, and clusters the activity route data using the calculated activity feature similarity, and

an output generation step in which the arithmetic

device outputs information on the cluster generated in the spatiotemporal clustering step,

wherein the temporal divergence calculation step comprises calculating the temporal divergence or the spatial divergence by taking into account speed information associated with the movement trajectory information, and

wherein the temporal divergence calculation step comprises multiplying the temporal divergence by the speed information to calculate a temporal divergence having the same dimension as the spatial divergence, or dividing the spatial divergence by the speed information to calculate the spatial divergence having the same dimension as the temporal divergence.