WHAT IS CLAIMED IS:

1. A traffic event detection method, comprising:

a motion state related quantity acquisition step of acquiring motion state related quantities of motion of feature points at each of a plurality of time points, the feature point representing a vehicle;

an entropy calculation step of calculating, based on values of the acquired motion state related quantities at respective time points, entropy values of a traffic flow at respective time points; and

a traffic event detection step of fitting the calculated entropy values of the traffic flow at respective time points with a predetermined time interval and determining whether or not there is a traffic event according to results of the fitting,

wherein the entropy calculation step further comprises:

performing division of a plurality of status sections based on the values of the motion state related quantities;

calculating a ratio of a number of feature points in each of the state sections with respect to a number of all feature points as a probability for the state section; and

calculating the entropy value by multiplying the probability by a log value of the probability.

2. The traffic event detection method of claim 1, wherein

the feature point represents corners of the vehicle in a video image; and

the motion state related quantity acquisition step further comprises acquiring, based on coordinates of the corners in video images at different time points, motion state related quantities reflecting motion of the corners at each time point.

3. The traffic event detection method of any one of claims 1 to 2, wherein

the motion state related quantity is any one or any combination of the following items: velocity magnitude of the feature points, velocity direction of the feature points, acceleration of the feature points, position coordinate of the feature points.

4. The traffic event detection method of any one of claims 1 to 2, wherein the motion state related quantity is a combination of velocity magnitude of the feature points and velocity direction of the feature points, and

the entropy calculation step further comprises:

performing division of the state sections based on the velocity magnitude of the feature points and velocity direction of the feature points;

calculating a ratio of a number of feature points in each of the state sections obtained based on the velocity magnitude of the feature points and velocity direction of the feature points with respect to all feature points as the probability for the state section.

5. A traffic event detection system, comprising:

a motion state related quantity acquisition unit configured to acquire motion state related quantities of motion of feature points at each of a plurality time points, the feature point representing a vehicle;

an entropy calculation unit configured to calculate, based on values of the acquired motion state related quantities at respective time points, entropy values of a traffic flow at respective time points; and

a traffic event detection unit configured to fit the calculated entropy values of the traffic flow at respective time points with a predetermined time interval and determine whether or not there is a traffic event according to results of the fitting,

wherein the entropy calculation unit is further configured to:

perform division of a plurality of status sections based on the values of the motion state related quantities;

calculate a ratio of a number of feature points in each of the state sections with respect to a number of all feature points as a probability for the state section; and

calculate the entropy value by multiplying the probability by a log value of the probability.

6. The traffic event detection system of claim 5, wherein

the feature point represents corners of the vehicle in an video image; and

the motion state related quantity acquisition unit is further configured to acquire, based on coordinates of the corners in video images at different time points, motion state related quantities reflecting movement of the corners at each time point.

7. The traffic event detection system of any one of claims 5 to 6, wherein

the motion state related quantity is any one or any combination of the following items: velocity magnitude of the feature points, velocity direction of the feature points, acceleration of the feature points, position coordinate of the feature points.

8. The traffic event detection system of any one of claims 5 to 6, wherein the motion state related quantity is a combination of velocity magnitude of the feature points and velocity direction of the feature points, and

the entropy calculation unit is further configured to:

perform division of the state sections based on the velocity magnitude of the feature points and velocity direction of the feature points;

calculate a ratio of a number of feature points in each of the state sections obtained based on the velocity magnitude of the feature points and velocity direction of the feature points with respect to all feature points as the probability for the state section.

9. A traffic event detection apparatus, comprising:

a processor;

a memory for storing instructions executable by the processor,

wherein the processor is configured to perform:

a motion state related quantity acquisition step of acquiring motion state related quantities of motion of feature points at each of a plurality of time points, the feature point representing a vehicle;

an entropy calculation step of calculating, based on values of the acquired motion state related quantities at respective time points, entropy values of a traffic flow at respective time points; and

a traffic event detection step of fitting the calculated entropy values of the traffic flow at respective time points with a predetermined time interval and determining whether or not there is a traffic event according to results of the fitting,

wherein the entropy calculation step further comprises:

performing division of a plurality of status sections based on the values of the motion state related quantities;

calculating a ratio of a number of feature points in each of the state sections with respect to a number of all feature points as a probability for the state section; and

calculating the entropy value by multiplying the probability by a log value of the probability.

10. A computer readable storage medium having instructions stored thereon, the instructions, when executed by a device, cause the device to perform a traffic event detection method according to any of the claims 1-4.