CLAIMS

1. A method for detecting any presence of an interference signal in a signal received by a receiving device (12), the received signal comprising a wanted component and an unwanted component, the receiving device (12) comprising N receiving channels (14) and a computer (16), N being an integer greater than or equal to 2, the method being implemented by the computer (16), the method comprising a step for:

- obtaining at least one matrix among an autocorrelation matrix of the signal received by each receiving channel (14), and an autocorrelation matrix of the unwanted component so as to obtain at least one determined matrix,
- calculating the eigenvalues of the at least one determined matrix,
- estimating the signal to interference plus noise ratio of the recombined signal, the recombined signal being obtained by recombination of the signals of each of the N receiving channels (14), and
- detecting any presence of an interference signal as a function of at least one of the calculated eigenvalues and of the estimated signal to interference plus noise ratio.

2. The method according to claim 1, wherein the detection step comprises the following operation:

- applying a function to at least one eigenvalue,
- comparison of the result of the function obtained after carrying out the applying operation to a threshold depending on the estimated signal to interference plus noise ratio, and
- detecting any presence of interference as a function of the result of the comparison.

3. The method according to claim 2, wherein the function is an identity function, a linear function, a trace function, a division function or a multiplication function.

4. The method according to any one of claims 1 to 3, wherein, during the detection step, each eigenvalue is chosen from the list made up of the largest eigenvalue of the autocorrelation matrix of the received signal, the largest eigenvalue of the autocorrelation matrix of the unwanted component, the smallest eigenvalue of the autocorrelation matrix of the received signal, the smallest eigenvalue of the autocorrelation matrix of the unwanted component.

5. The method according to any one of claims 1 to 4, wherein the method further includes a step for obtaining an estimator of the power ratio between the power of the interference signal and the power of the thermal noise of the receiving device (12), the estimator depending on the calculated eigenvalues.

6. A computer (16) suitable for detecting any presence of an interference signal in a signal received by a receiving device (12), the received signal comprising a wanted component and an unwanted component, the receiving component (12) comprising N receiving channels (14), N being an integer greater than or equal to 2, the computer (16) being able to:

- obtain at least one matrix among an autocorrelation matrix of the signal received by each receiving channel (14), and an autocorrelation matrix of the unwanted component so as to obtain at least one determined matrix,
- calculate eigenvalues of the at least one determined matrix,
- estimate the signal to interference plus noise ratio of the recombined signal, the recombined signal being obtained by recombination of the signals of each of the N receiving channels (14), and
- detect any presence of an interference signal as a function of at least one of the calculated eigenvalues and of the estimated signal to interference plus noise ratio.

7. A receiving device (12) comprising a computer (16) according to claim 6.

8. A platform (10) comprising a computer (16) according to claim 6 and a receiving device (12) according to claim 7.

9. A computer program product including a readable information medium, on which a computer program is stored comprising program instructions, the computer program being able to be loaded on a data processing unit and suitable for driving the implementation of at least one step of a method according to any one of claims 1 to 5 when the computer program is implemented on the data processing unit.

10. A readable information medium including program instructions forming a computer program, the computer program being able to be loaded on a data processing unit and suitable for driving the implementation of at least one step of a method according to any one of claims 1 to 5 when the computer program is implemented on the data processing unit.