CLAIMS

1. A method for trajectory correction of a projectile (1), which is terminal phase-guided, after a detection of a deviation of the projectile (1) by a sensor (10) on a weapon, the method comprising:
   - triggering a first laser beam (11) over a specific region (15) about a desired course of the projectile (1), which simultaneously triggers a start of a time counter;
   - transmitting an additional rotating laser beam (12) with a fixed rotational frequency (Ω) about the specific region (15);
   - detecting the second laser beam (12) by the projectile (1), which is encoded depending on the deviation;
   - ascertaining the deviation of the projectile (1) relative to the projectile's desired course; and
   - initiating of trajectory correction based on the ascertained deviation.

2. The method according to claim 1, wherein the rotating laser beam (12) starts at a time t=0, and wherein the projectile (1) detects the second laser beam (12) after a time $t=t_1$.

3. The method according to claim 1 or 2, wherein delays for the initiation of the correction as a function of the ascertained deviation are stored in the projectile (1).

4. The method according to claim 3, wherein the correction in the case of a large deviation is initiated earlier or even immediately, or wherein is initiated at a later point of time in the case of a relatively small deviation.

5. The method according to one of the claims 1 to 4, wherein the projectile (1) is traced by at least one sensor (10) and the desired course is continuously compared to the actual course.

6. The method according to one of the claims 1 to 5, wherein the coding is depicted via lines (19, 20), points or combination of the lines and points, like time-wise altered encoding, polarization or a modulated carrier wave.

7. The method according to one of the claims 1 to 6, wherein the rotating laser beam (12) is impressed in an asymmetric manner varying in a radial direction about the desired trajectory, for example converging in a direction of an outer edge or converging in a direction of a center (13).

8. A projectile (1) for carrying out one of the methods 1 to 7, the projectile (1) comprising at least one rear sensor (2), an explosive (4), a discharge element (5) configured as a correction thruster (6) and a processor (7) to ascertain a deviation of the projectile (1) from the desired course, wherein the rear sensor (2) is adapted to receive laser beams (12) and delays corresponding to the encoding of the laser beam (12) are preprogrammed or stored in the processor (7) via which the correction thruster (6) is initiated.

9. A projectile (1) according to claim 8, wherein ether the potency of the correction thruster(s) (6) is designed variably, or the correction thruster(s) (6) with fixed potency are initiated at different times in regard to the expected impact time.

10. A Projectile according to claim 8, wherein an additional magnetic field sensor (3) detects both a rotational speed of the projectile (1) and a direction of the magnetic field relative to the projectile (1).

11. A projectile according to claim 8 or 9, wherein delays are preprogrammed or stored in the processor (7) via which the correction is initiated as a function of a magnitude of the ascertained deviation.

12. A projectile according to claim 10, wherein in the case of a small desired correction the correction thruster(s) (6) is/are initiated only right before the calculated impact time, and wherein in the case of a large desired correction the correction thruster(s) (6) is/are initiated earlier.

13. A projectile according to one of the claims 10 to 12, wherein the projectile after detection of its geostationary position via its sensor initiates at least one thruster (6) in such manner, that it returns to its desired course and hits the target.

CLAIMS

1. A method for trajectory correction of a projectile, which is terminal phase-guided, after a detection of a deviation of the projectile by a sensor on a weapon, the method comprising:

triggering a first laser beam over a specific region about a desired course of the projectile, which simultaneously triggers a start of a time counter;

transmitting an additional rotating laser beam with a fixed rotational frequency about the specific region;

detecting the second laser beam by the projectile;

ascertaining the deviation of the projectile relative to the projectile's desired course; and

initiating of the trajectory correction based on the ascertained deviation.

2. The method according to claim 1, wherein the rotating laser beam starts at a time t=0, and wherein the projectile detects the second laser beam after a time $t=t_1$.

3. The method according to claim 1, wherein the correction in the case of a large deviation is initiated earlier during a remaining flight time of the projectile than the correction in the case of a small deviation, wherein the size of the deviation is based on zones of a grid.

4. The method according to claim 3, wherein delays for the initiation of the correction as a function of the ascertained deviation are stored in the projectile.

5. The method according to claim 1, wherein the rotating laser beam is coded.

6. The method according to claim 5, wherein the coding is depicted via lines, points, or combinations of the lines or points.

7. The method according to claim 1, wherein the rotating laser beam is impressed in an asymmetric manner varying in a radial direction about the desired trajectory, and wherein the rotating laser is configured to converge in one of a direction of an outer edge and a direction of a center.

8. The method according to claim 1, further comprising detecting both a rotational speed of the projectile and a direction of a magnetic field relative to the projectile.

9. The method according to claim 1, further comprising preprogramming or storing delays via which the correction is initiated as a function of a magnitude of the ascertained deviation.

10. A terminal phase-guided projectile, the projectile comprising:

a rear sensor;

an explosive;

a discharge element configured as a correction thruster; and

a processor configured to ascertain a deviation of the projectile from a desired course,

wherein the rear sensor is adapted to receive laser beams.

11. The projectile according to claim 10, wherein an additional magnetic field sensor detects both a rotational speed of the projectile and a direction of the magnetic field relative to the projectile.

12. The projectile according to claim 10, wherein delays are preprogrammed or stored in the processor via which the correction is initiated as a function of a magnitude of the ascertained deviation.