What is Claimed:

1. A light source, comprising:

   a laser source, the laser source comprising at least one diode;

   an optic fiber disposed so as to communicate light pulses having a plurality of modes between the laser source and a target position so as to reduce speckles in a captured image of a target at the target position,

   at least some of the optic fiber being present in one or more layers wrapped about a spindle,

   the spindle optionally comprising circumferential walls between which circumferential walls optic fiber is wound,

   a layer comprising at least one taut winding of the optical fiber.

2. The light source of claim 1, wherein a layer of the optic fiber comprises at least two taut windings of the optic fiber that are essentially parallel to one another.

3. The light source of any one of claims 1 to 2, wherein a winding of the optic fiber in an outer layer is essentially parallel to a winding of the optic fiber in an inner layer immediately beneath the outer layer.

4. The light source of any one of claims 1 to 3, wherein windings of the optic fiber in an outer layer do not cross over windings of the optic fiber in an inner layer immediately beneath the outer layer.

5. The light source of any one of claims 1 to 4, comprising an inner layer of optic fiber comprising a plurality of taut windings of the optic fiber and an outer layer of optic fiber comprising a plurality of taut windings of the optic fiber, and wherein

   (i) the plurality of taut windings of the optic fiber in the outer layer are parallel to one another,

   (ii) the plurality of taut windings of the optic fiber in the inner layer are parallel to one another, and the plurality of taut windings of the optic fiber in the

outer layer are parallel to plurality of windings of optic fiber in the inner layer.

6. The light source of any one of claims 1 to 5, wherein the spindle has a constant cross-sectional dimension.

7. The light source of any one of claims 1 to 5, wherein the spindle is variable in cross-sectional dimension.

8. The light source of any one of claims 1 to 7, wherein the spindle has a cross-sectional dimension of from about 1 cm to about 10 cm.

9. The light source of any one of claims 1 to 8, wherein the light pulses from the laser source are synchronized.

10. The light source of any one of claims 1 to 9, wherein light from the laser source is pulsed at approximately 100 nanoseconds to strobe the target.

11. The light source of any one of claims 1 to 10, further comprising an image capture device configured to capture the captured image of the target, the captured image optionally having an exposure of approximately 6 microseconds.

12. The light source of any one of claims 1 to 11, wherein the optic fiber is a multimode optic fiber.

13. The light source of any one of claims 1 to 12, wherein the optic fiber is a high numeric aperture optic fiber.

14. The light source of any one of claims 1 to 13, wherein a numeric aperture of the optic fiber is approximately 0.5.

15. The light source of any one of claims 1 to 14, wherein the length of the optic fiber is between approximately 2 meters and approximately 75 meters.

16. The light source of claim 15, wherein the length of the optic fiber is approximately 50 meters.

17. The light source of any one of claims 1 to 16, wherein the laser source comprises a plurality of laser diodes and wherein each of the plurality of laser diodes is positioned spatially apart from other ones of the plurality of laser diodes.

18. The light source of any one of claims 1 to 17, wherein the position for the target is spatially separated from the plurality of laser diodes.

19. The light source of any one of claims 1 to 18, wherein the laser source includes a first laser diode that generates the source light at a predefined wavelength.

20. The light source of any one of claims 1 to 19, wherein the laser source includes at least one multimode laser diode.

21. The light source of any one of claims 1 to 20, wherein the laser source includes a plurality of laser diodes, wherein at least one of the plurality of laser diodes generates light at a different wavelength from another of the plurality of laser diodes.

22. A method, comprising operating a light source according to any one of claims 1-21 to illuminate a target.

23. The method of claim 22, further comprising collecting an image of the target.

24. A cytometer, comprising:

a flow cell configured to contain one or more particles therein,

the flow cell defining a target region;

an illumination train comprising at least (1) a laser source that includes at least one diode and (2) an optic fiber in optical communication with the laser source,

at least some of the optic fiber being present in one or more layers wrapped about a spindle,

the spindle optionally comprising circumferential walls between which circumferential walls optic fiber is wound, and

a layer comprising at least one taut winding of the optical fiber.

25. The cytometer of claim 24, further comprising an image capture device configured to capture an image of a target disposed within the target region while illuminated by illumination from the at least one diode communicated through the optic fiber.