To extend the parallelized RESOLFT concept and achieve super‑resolution also in the axial direction, we devised a new light pattern for emission confinement. Since axially extended resolution requires axially confined emission, the light pattern used to confine the emission needs to exhibit modulation also in this direction. We achieve this by firstly superimposing two sinusoidal interference patterns that are tilted with respect to the optical axis and finally add a third sinusoidal pattern that is rotated 90 degrees laterally with respect to the first two. Each sinusoidal pattern is created by focusing two coherent beams on the back focal plane of the objective. The tilt is achieved by moving the two focal spots to the side of the back focal plane so that they are not symmetric around the center. The combination of the three patterns results in a lateral array of three-dimensionally confined zero‑intensity points. These points are then used with the RESOLFT pulse scheme to achieve three-dimensional parallelized RESOLFT microscopy, or 3D pRESOLFT.