

# TIMELINE | SPECIAL RELATIVITY

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REFATH BARI

6/26/20

## MILESTONES

BELOW ARE THE MILESTONES BY WHICH I WILL MEASURE MY PROGRESS IN UNDERSTANDING SPECIAL RELATIVITY:

1. GALILEAN TRANSFORMATIONS (COMPLETE)
2. MICHELSON-MORLEY EXPERIMENT (COMPLETE)
3. MAXWELL'S EQUATIONS (ONGOING)
4. LORENTZ TRANSFORMATIONS
5. EINSTEIN'S SOLUTION
6. HYPERBOLIC FUNCTIONS
7. MINKOWSKI GEOMETRY
8. PHYSICAL CONSEQUENCES
9. NEWTON'S LAWS OF MOTION
10. CURVES AND CURVATURE
11. ACCELERATED MOTION
12. UNIFORM ROTATION
13. LINEAR ACCELERATION
14. NEWTONIAN GRAVITY
15. GRAVITY IN SPECIAL RELATIVITY
16. THE METRIC
17. INTRINSIC GEOMETRY ON THE SPHERE
18. DE SITTER SPACETIME
19. CURVATURE OF A SURFACE

## PROSPECTIVE DATES

BELOW ARE SOME DEADLINES I MUST CONSIDER:

1. *REGENERON TALENT SEARCH DEADLINE: NOVEMBER 12, 2020*
2. *NYCSEF: DECEMBER 13, 2020*
3. *MIT THINK: JANUARY 1, 2020*