

The ATLAS model vs. detector



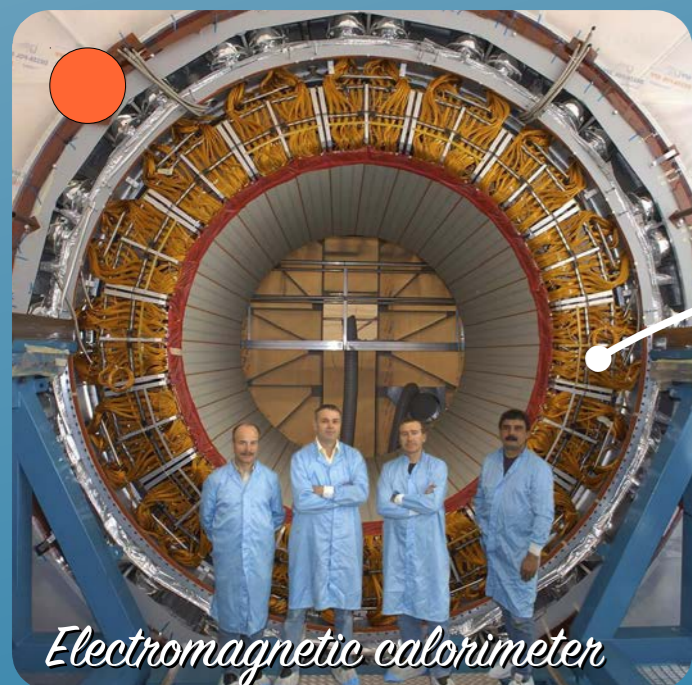
Pixel detector



Semi-conductor tracker



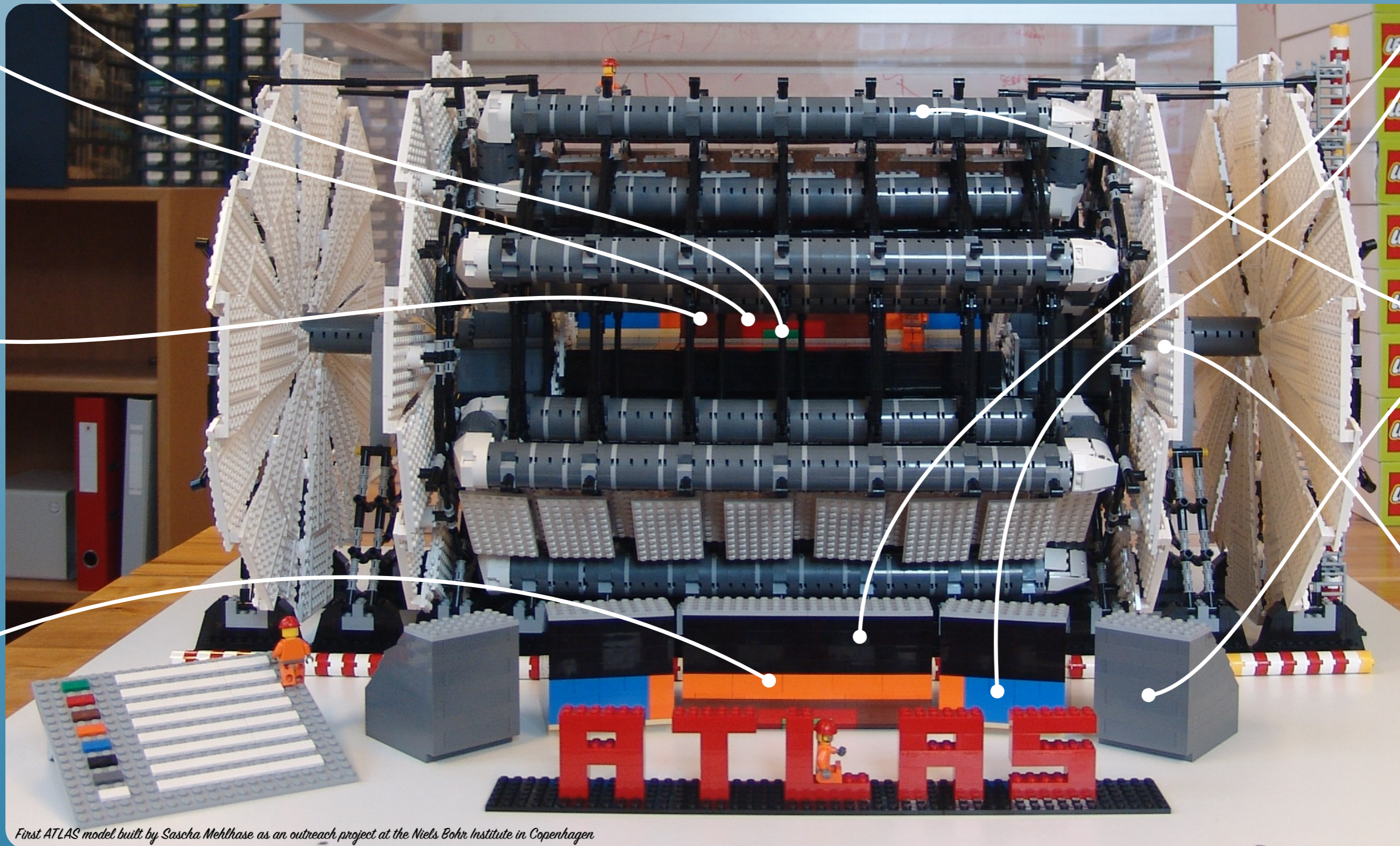
Transition radiation tracker



Electromagnetic calorimeter

ATLAS is a particle physics experiment at the Large Hadron Collider at CERN. The ATLAS detector is searching for new discoveries in the head-on collisions of protons of extraordinarily high energy. ATLAS will learn about the basic forces that have shaped our Universe since the beginning of time and that will determine its fate. Among the possible unknowns are the origin of mass, extra dimensions of space, unification of fundamental forces, and evidence for dark matter candidates in the Universe.

The ATLAS model is a 1:50 representation of the real detector, designed by ATLAS physicist Sascha Mehlhase. It is roughly in scale to a plastic man and consists of about 9500 pieces. The initial 3D design of the model took about 48 hours, while the construction of the brick model consumed roughly 33 man hours.



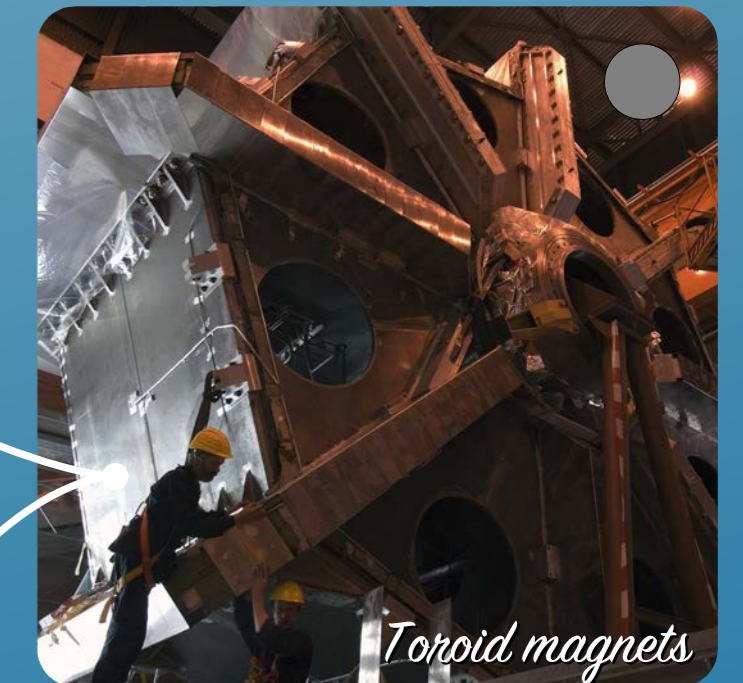
First ATLAS model built by Sascha Mehlhase as an outreach project at the Niels Bohr Institute in Copenhagen



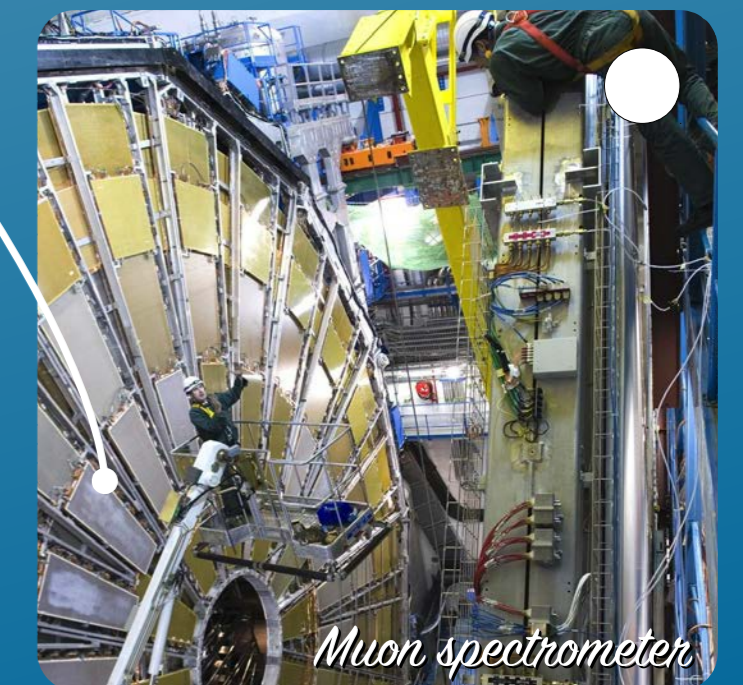
Hadronic barrel calorimeter



Hadronic end-cap calorimeter



Toroid magnets



Muon spectrometer