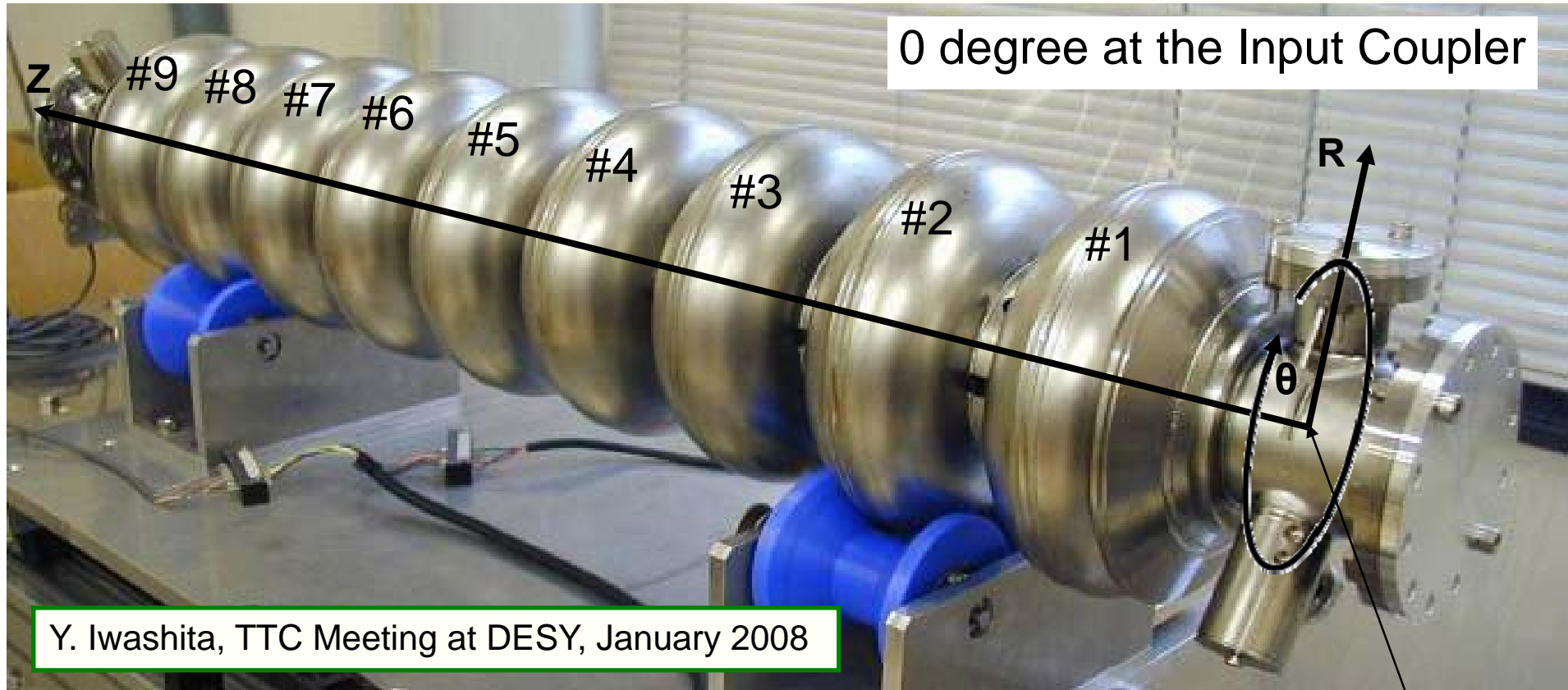# Standardized Coordinate Systems

ILC Cryomodule and Cavity Coordinate Systems

proposed by Don Mitchell,
Fermilab, 25 NOV 2008

Global Cavity Coordinate System

0 degree at the Input Coupler

Z

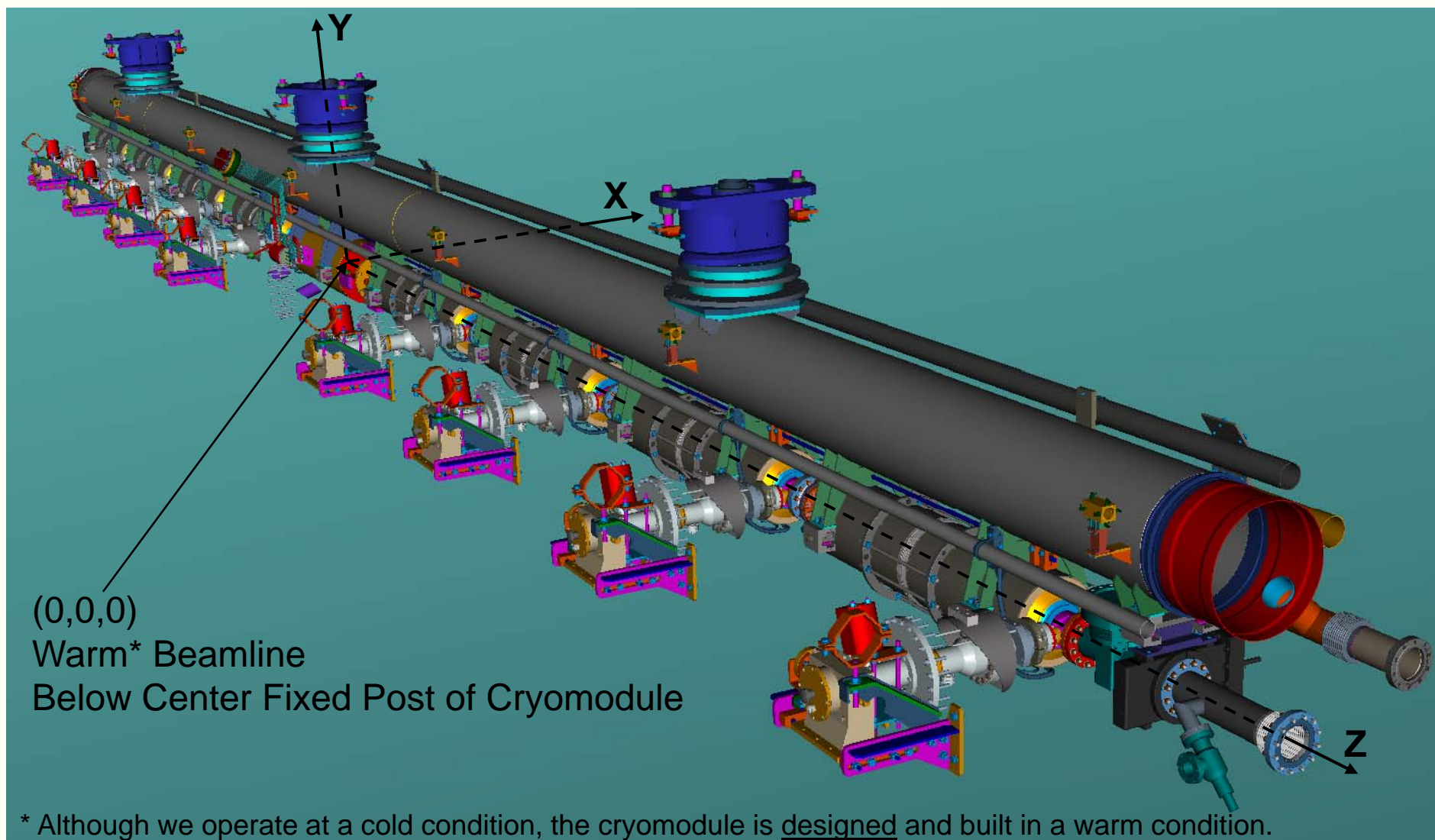#9 #8 #7 #6 #5 #4 #3 #2 #1

R

θ

(0,0,0)

Y. Iwashita, TTC Meeting at DESY, January 2008

- Common cylindrical coordinate system for the cavities.
- Most of the ILC baseline-shaped cavities use this C.S.

proposed by Don Mitchell, Fermilab, 25 NOV 2008

Global Cryomodule C.S.

(0,0,0)
Warm* Beamline
Below Center Fixed Post of Cryomodule

* Although we operate at a cold condition, the cryomodule is <u>designed</u> and built in a warm condition.

proposed by Don Mitchell, Fermilab, 25 NOV 2008

Global Cryomodule C.S. data

Type 4 Cryomodule
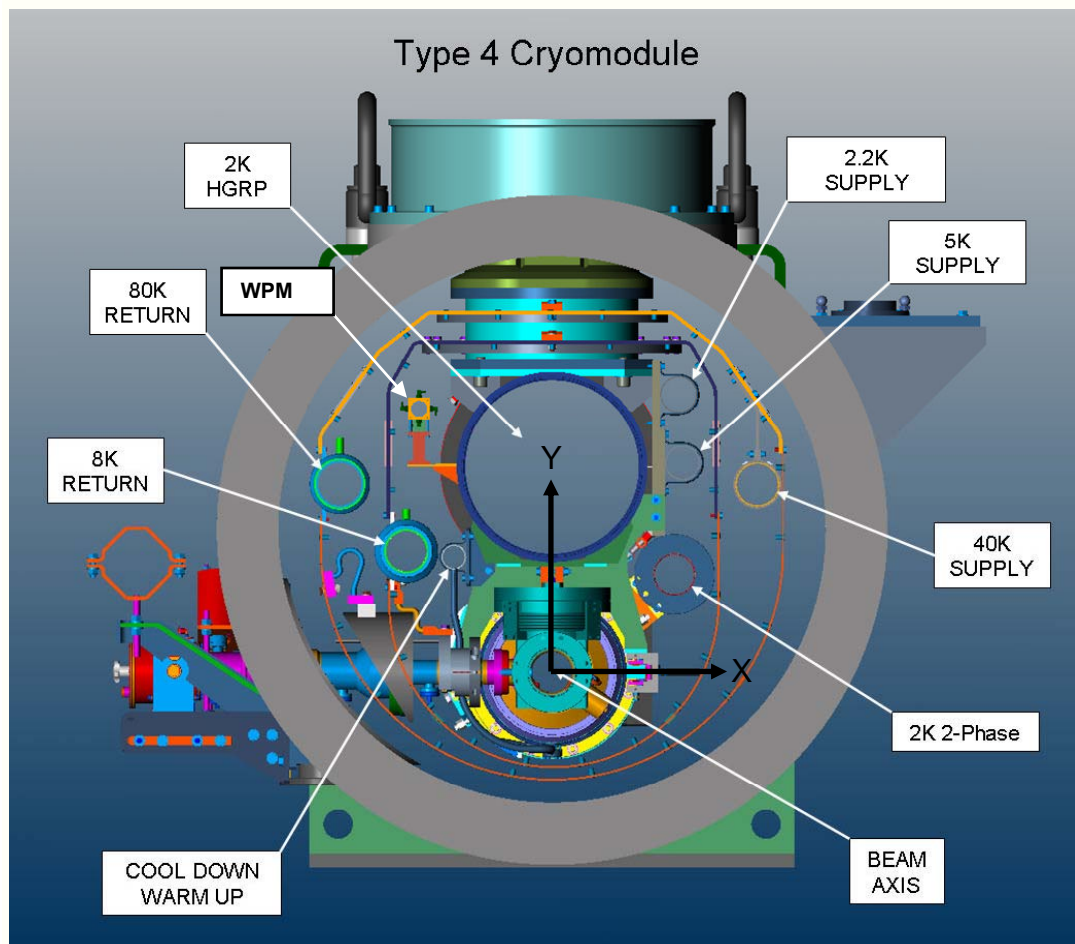
T4CM Data

Cryo Pipe Locations	X (warm)	Y (warm)
Beam Axis	0	0
Supply – 2.2K	219	481.5
Supply - 5K	225.5	362.5
Supply - 40K	355	325.00
Cool down - Warm up	-170	200.00
Return - 8K	-252	210.00
Return - 80K	-367	326.00
WPM	-230	485.50
2-Phase – 2K	210.61	170.55
HGRP – 2K	0.00	356.00