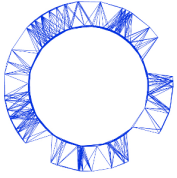


Theory



IPhO 2018
Lisbon, Portugal

A2-1

English (Official)

Where is the neutrino? (10 points)

Part A. ATLAS Detector Physics (4.0 points)

A.1 (0.5 pt)

$r =$

A.2 (0.5 pt)

$p =$

A.3 (1.0 pt)

$\xi =$ $n =$ $k =$

A.4 (1.0 pt)

$\alpha =$

A.5 (0.5 pt)

$\Delta E =$

A.6 (0.5 pt)

$\omega(t) =$

Part B. Finding the neutrino (6.0 points)

B.1 (1.5 pt)

$m_W^2 =$

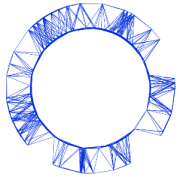
B.2 (1.5 pt)

$p_z^\nu =$ or $p_z^\nu =$

B.3 (1.0 pt)

$m_t =$ or $m_t =$

Theory



IPhO 2018
Lisbon, Portugal

A2-2

English (Official)

B.4 (1.0 pt)

Most likely candidate:

B.5 (1.0 pt)

$d =$