



ILD Endplate Mechanics

Phone meeting June 7, 2012

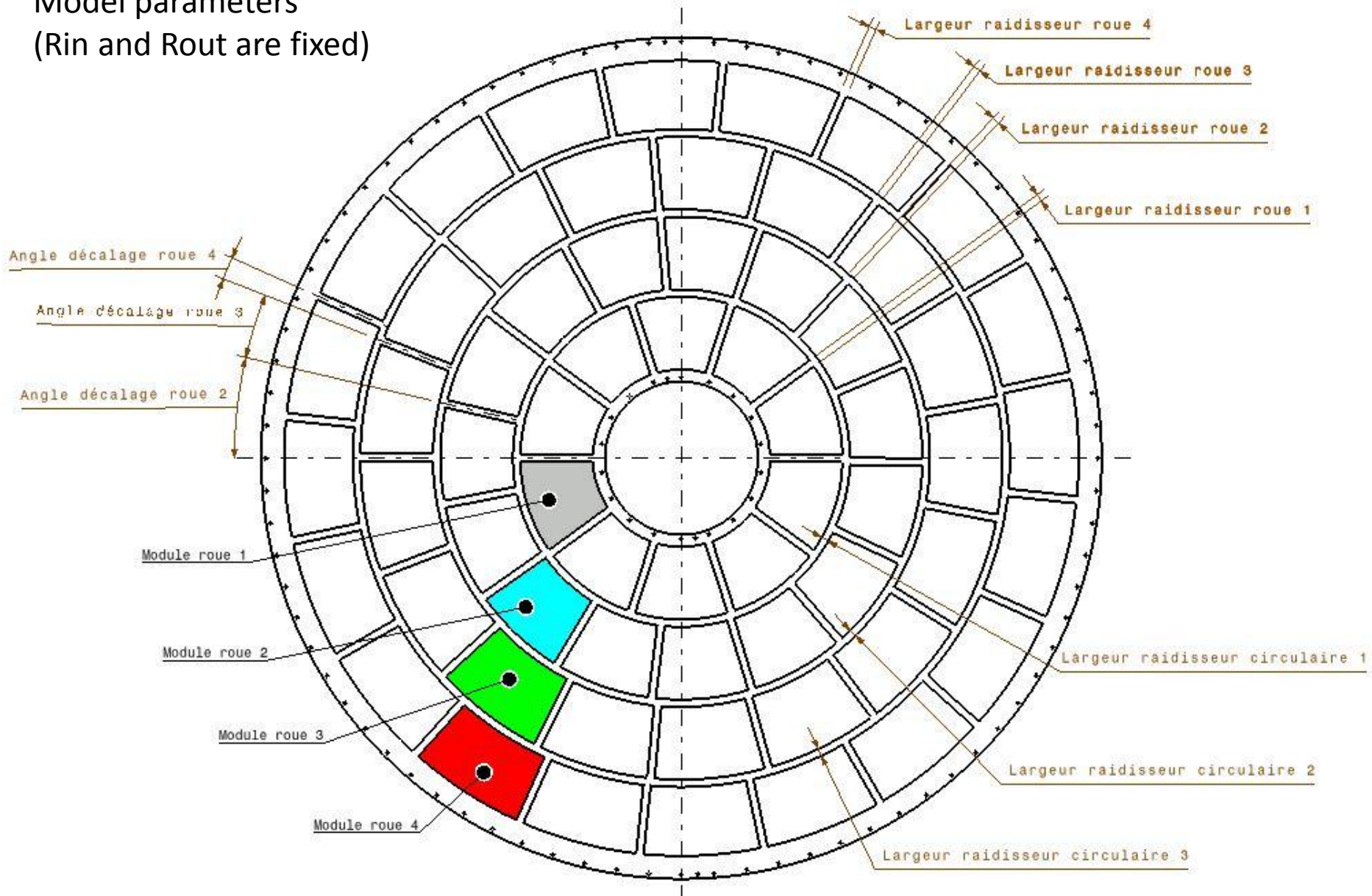
D. Attié, D. Bachet, P. Colas, P. Manil, M. Riallot

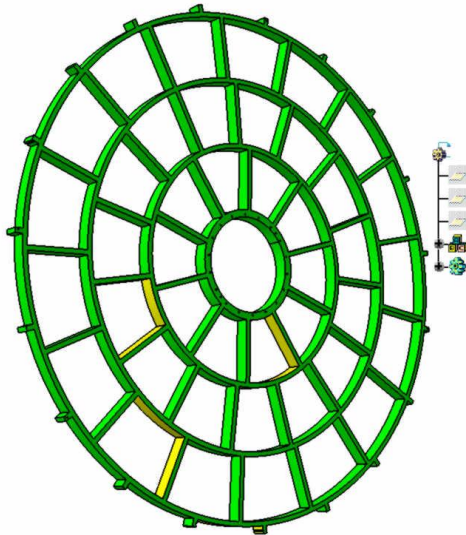
Tool under development

- Cathya-based parametrized modelling of an N-wheel endplate. Parameters in an excel-file.
- ANSYS mechanical calculation
- Iterate and optimize
- (see also previous study in 2010 with pressure and weight and hanging efforts, by M. Carty et al.)
- Recently the demonstration was made of a fully integrated electronics within $0.25 X_0$, connected with 3 cables per module (low-voltage 2mm^2 copper, high voltage and optical fibre).

Exemple Endplate avec 4 roues

Model parameters
(Rin and Rout are fixed)



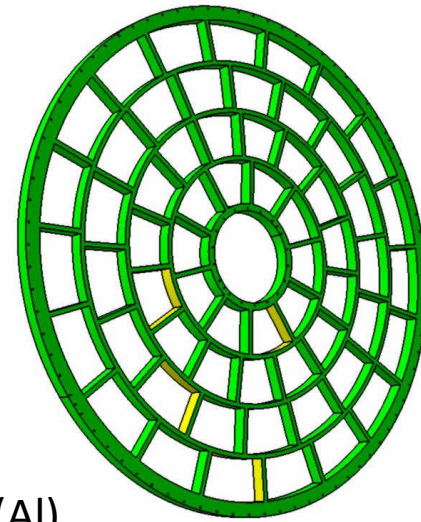


4 wheels

3 wheels

417 kg (Al)

42 modules

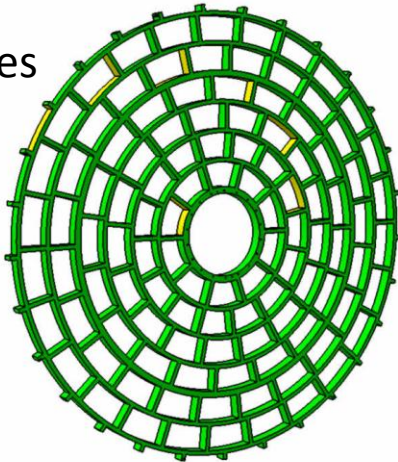


680 kg (Al)

61 modules

6 wheels

110 modules



8 wheels



944 kg (Al)

171 modules

