

LOI SID (Subsystem description) – adapted from Hiro Aihara’s list for hardware.

1. PFA in the context of SiD

1.1 Name of the subsystem

1.2 Contact person(s) for LOI writing

1.3 Functional definition: input, output, process(es)

1.4 Role in reconstruction

1.5 Requirements/specifications

Requirements on tracking/calorimeter/muon systems

2. Description of the PFA system

2.1 Concept – SiD PFA approach

2.2 Expected performance - jet energy resn., jet-jet mass resolution

2.3 Options – high energy/regular calorimetry

3. R&D roadmap – performance to be achieved

3.1 Issues – backgrounds, calibration, digital/semi-digital

3.2 Milestones (Before 2012, and after 2012)

3.3 Resources needed

4. Estimated development schedule

4.1 How long does it take to develop

4.2 Required human resources

5. Estimated cost

6. Organization of the PFA subgroup

6.1. Institutions involved

7. Q&A : anticipated questions from IDAG and answers to them