SIMULATION.

G. BLAIR. RMRNC.

OXFORD. 22.3.99

- OVERVIEW OF MEETING
- OVERVIEW OF :
  - WHAT HAS BEEN DONE
  - ONGOING WORK

MOSTLY SAMPLES FROM OTHER WORKING GROUPS.

- PLANS
- SUMMARY

SIMULATION MTG.

- A SHORT MEETING HELD TO DISCUSS
  - PLANS FOR SITGES (M. POHL)
  - POST SITGES.
- NO NEW TOOLS (REALISTICALLY) BEFORE SITGES, BUT WORK IS CONTINUING...

WHAT EXISTS:

- FAST SIMULATION
  - SIMDET V.3.
  - SGV.
- BRAHMS V. 1.03 FULL GEANT 3.

FAST + FULL SIMULATION ARE BEING USED EXTENSIVELY BY PHYSICS + DETECTOR GROUPS.

M. PohL
H.J. Schreiber

SIMDET V3

- PARAMETRIC MONTE CARLO
  - CDR DETECTOR
  - PARAMETERS EASILY VARIED VIA DATA CARDS
  - FULL DOCUMENTATION
    DESY 99-030
- 'FAST' VERSION OF BRAHMS
  - CALORIMETER RESPONSE (ENERGY FLOW)
  - COMMON INPUT FORMAT (LCREAD)
  - CONSISTENT OUTPUT DATA STRUCTURE

    (PLANS EXIST TO IMPLEMENT THIS IN BRAHMS TOO).
- FULLY OPERATIONAL IN TIME FOR PHYSICS STUDIES

WORK IN PROGRESS

- CALORIMETER
  - MAJOR STUDY UNDERWAY
  - # λ's INSIDE COIL ?

V. KORBEL
S. KOTELNIKOV

- BEAMLINE
  - BRAHMS EXTENSIVELY ENLARGED TO INCLUDE BEAMLINE ELEMENTS.
  - EXTENT GOVERNED BY CARDS / SWITCHES
  - SIGNIFICANT EFFORT ON BACKGROUND STUDIES (γ's , pairs, n's ..)

T. BEHNKE
C. HENSEL

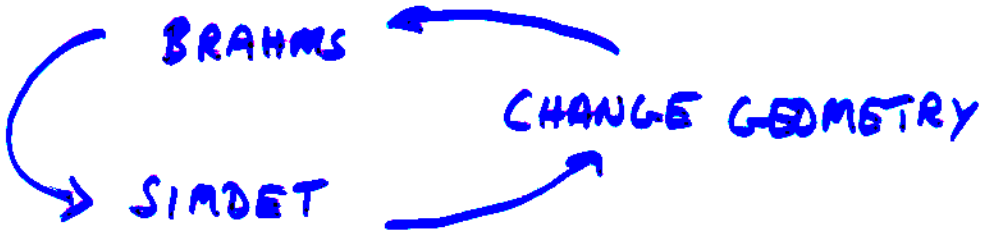
VERY ACTIVE AREAS OF DEVELOPMENT.

FUTURE PLANS

- MUON SYSTEM — G. BRUNI, M. PICCOLO
  - CODE BEING DEVELOPED IN BRAHMS FRAMEWORK
  - INCORPORATION IN NEXT RELEASE.
- DETAILED MAG GEOMETRY
  - CODE BEING DEVELOPED IN BRAHMS FRAMEWORK. — M. AGOLO
- PATTERN RECOGNITION ISSUES
  - NONE IN PRESENT CODE
  - TPC 2-TRACK RESOLUTION UNDER STUDY — T. BEMKE et al.
  - VXD STUDIES PLANNED — M. BATTAGLIA et al.
- GFLASH — P. STEFFEN
- GEANT 4 — A. DE ROECK, R. GEHARDS

BRAHMS ↔ SIMDET

- ENERGY FLOW — M. POHL
- MAJOR NEW DEVELOPMENTS IN B-TAG STUDIES — M. BATTAGLIA, R. HAWKINGS



- GLOBAL TRACKING — K. MÖNIG et al.
  - DELFIT
  - MAJOR IMPACT ON TRACKING GEOMETRY

- MASK GEOMETRY — M. PICCOLO
  - FULL SIMULATION UNDERWAY
  - NEW IDEAS ON E_{CMS}^{TRUE}.

- DETAILED SIMULATIONS OF SPECIAL SIGNATURES

SUMMARY

- A LOT OF WORK HAS BEEN DONE BY MANY PEOPLE

- WE NOW NEED TO HAVE GREATER RESPONSIBILITY BY INDIVIDUAL DETECTORS

- FAIRLY FAST TURN-AROUND FOR NEW DETECTORS → TDR

- ACHIEVED A GOOD SET OF TOOLS IN TIME FOR ANALYSES

- ALL THE CODE CAN BE LOCATED : H. VOGT

http://www.ifh.de/linear_collider/ SGV/ SIMDET/ BRAHMS/ dev/ pro/ old/

- PLEASE USE, + CONTRIBUTE !