24 June 1985

JADE COMPUTER NOTE No 83
Re-Analysis of Multihadronic Events

E.Elsen and K.H.Hellenbrand

The hadronic events taken up to the end of 1984 have been reTPed on the Heidelberg computer. The objective was to create uniform event result banks for the entire datataking of JADE. The so-called standard MH-datasets were processed and partly reanalysed over the years so that different and sometimes irreproducable result bank versions were available. This is usually of minor importance for the standard MH-user but hampers the detailed understanding that is needed for dE/dx and other purposes.

The list of datasets available is given at the end. The input to the analysis were MH-event candidates before E_{vis} and p_{bal}-cut. This was felt neccessary not to bias the event selection. It also makes the data usable for people looking for exotics. People interested in standard MH-events should call routine MCREDU to perform the neccessary reduction.

There is not always a one to one correspondance between the input datasets and the ones given in the TPSTATUS-list. The reason is that the origin of the event samples in the TPSTATUS-list sometimes is not very clear and some of the later occuring rearranging of event samples did not propagate into the TP-datasets. To the best of our knowledge the list below gives the complete sample of hadronic event candidates.

Before reanalysing the data were basically reduced to their original NORD format. The only banks kept were the ones created on the NORD: uncalibrated JETC etc. This made sure that no half-old information was used.

The important steps in the TP-program were
- JETC calibration
- Pattern Recognition (creates PATR 10, JHTL 10)
- JETC z-calibration (CALL ZSFIT(1))
- Helix fit (CALL RFEVFT) (creates PATR 9, JHTL 9)
- Refit of track with soft origin constraint (CALL PATRCO) using as input PATR 10, JHTL 10. Step creates PATR 8, JHTL 8. Note, however, that JHTL 8 is a mere copy of JHTL 10. The refit does not properly set the hit labels so that the input bank JHTL 10 is the best one has. Note also that with this fit it is perfectly possible that a track has more $r - z-$ than $r - \phi-$hits. (Ask P.Steffen for details).
- LG-calibration
- LG-clusterfinding
- Thrust calculation

In addition to the standard TP-banks the event records also contains a PHOT-bank, created with options LPAT=0, LZF=1 and LFIT=1 (see JADE Computer Note 75 by M.Kuhlen). This bank holds the information about candidates for converted photons.

All banks are kept on tape (The event length increases by a factor 6 from the raw format).

Typeset by $\mathcal{A}_{\mathcal{M}}S$-TEX

INPUT TAPES	FIRST- LAST RUN NUMBER	EVENTS	ECM	DSNAME TPED DATA
1979-1980 DATA				
F22ELS.TAPE.TPMH612	2307- 2520	314	12	F11HEL.URZ.TPMH612
F22ELS.TAPE.TPMH622	1083- 1162	21	22	F11HEL.URZ.TPMH622
F22ELS.TAPE.TPMH630	540- 3605	1363	27-31	F11HEL.URZ.TPMH630
1980-1981 DATA				
F22PWA.MERGORD.TPMH714	7969- 8629	3467	14	F11HEL.URZ.TPMH714
F22PWA.MERGORD.TPMH722A	7181- 7962	3098	22-25	F11HEL.URZ.TPMH722A
F22PWA.MERGORD.TPMH734A	6196- 7588	6199	30-34	F11HEL.URZ.TPMH734A
F22PWA.MERGORD.TPMH73SA	2750- 5665	4605	33-36	F11HEL.URZ.TPMH73SA
F22PWA.MERGORD.TPMH73SF	8716- 9724	9479	35	F11HEL.URZ.TPMH73SF
1982 DATA				
F22PWA.MERGORD.TPMA73SG	10055-10601	4776	35	F11HEL.URZ.TPMA73SG
F22PWA.MERGORD.TPMA73SL	10602-10973	4827	35	F11HEL.URZ.TPMA73SL
F22PWA.MERGORD.TPMA73SQ	11039-11656	5888	35	F11HEL.URZ.TPMA73SQ
F22PWA.MERGORD.TPMA73SW	11656-12518	6496	35	F11HEL.URZ.TPMA73SW
F22ELS.TAPE.TPMA717A	12446-12462	50	17	F11HEL.URZ.TPMA717A
F22ELS.TAPE.TPMB738A	12560-12948	1216	36-39	F11HEL.URZ.TPMB738A
1983 DATA				
F22ELS.TAPE.TPMD840A	12950-13581	1000	40	F11HEL.URZ.TPMD840A
F22ELS.TAPE.TPMD840B	13581-13879	1000	.	F11HEL.URZ.TPMD840B
F22ELS.TAPE.TPMD840C	13879-14225	1000	.	F11HEL.URZ.TPMD840C
F22ELS.TAPE.TPMD840D	14228-14582	994	.	F11HEL.URZ.TPMD840D
F22ELS.TAPE.TPMD844A	14611-15046	820	.	F11HEL.URZ.TPMD844A
F22ELS.TAPE.TPMD844B	15047-15688	1269	45	F11HEL.URZ.TPMD844B
1984 DATA				
F22ELS.TAPE.TPME846A	15699-16736	1865	46	F11HEL.URZ.TPME846A
F22ELS.TAPE.TPME844A	16806-17549	1804	44	F11HEL.URZ.TPME844A
F22ELS.TAPE.TPME844B	17550-17962	1090	44	F11HEL.URZ.TPME844B

>>>>> FROM RUN 17990 ON NO VALID DE/DX CALIBRATION <<<<<

INPUT TAPES	FIRST- LAST RUN NUMBER	EVENTS	ECM	DSNAME TPED DATA
F22ELS.TAPE.TPME844C	17963-18275	684	44	F11HEL.URZ.TPME844C
F22RAM.TAPE. REDUCONE.G892T904	18276-18433	323	44	F11HEL.URZ.G892T904
F22RAM.TAPE. REDUCONE.G90ST956	18434-19018	1528	44	F11HEL.URZ.G90ST956