Minutes

of the

JADE meeting

held at DESY, August 22, 2009, 15:00–19:00

Agenda:

15:00 Start of the meeting, personal interactions
15:30 Welcome; collaboration news (Rolf Felst)
16:00 JADE data analysis today - motivation and results (Siggi Bethke)
16:30 Long term storage of JADE data and resurrection of software (Jan Olsson)
17:00 Future use of JADE data and Authorship models (Siggi Bethke)
17:30 Slide show: JADE memories (all)
18:00 a.o.b.

19:00 dinner at DESY Bistro

1. Welcome and collaboration news (R. Felst)

Rolf Felst welcomed the 43 previous JADE members present at this meeting. He thanked the organisers of this meeting (S. Bethke, E. Elsen, J. Olsson and U. Schneekloth). Those JADE members who meanwhile passed away and who sadly are no longer with us anymore were mentioned and honoured by a standing ovation of the audience. Rolf Felst also summarised the still ongoing analysis activities based on JADE data and pointed to the following presentations, and to the need to discuss and decide on a future JADE authorship model.

The Text of Rolf Felst's contribution is attached to these minutes.

2. JADE Analysis today – motivation and results (Siggi Bethke)

Siggi presented the motivation, history and status of physics analyses based on the olde JADE data. Started in 1996 by SB and one of his students, Pedro Movilla-Fernandez (now at Fermilab) at RTWH Aachen, today there are still activities at Siggi's group at Max-Planck-Institute of Physics, Munich (MPP), where also all JADE data and software is permanently stored (and kept running). So far, 10 journal publications were submitted, and about 10 contributions to conferences (mostly by the students/postdocs who were principal authors) were given. New and advanced Monte Carlo data sets have been produced. They were the basis for most of the new JADE publications, mostly on topics of QCD and measurements of the strong

coupling, α_s. Stefan Kluth of MPP was present at this meeting, as one of the small JADE analysis group.

Copies of Siggi's slides are attached to these minutes.

3. Long term storage and resurrection of JADE software (Jan Olsson)

Jan gave an entertaining overview of the effort of saving JADE data from being lost at DESY, and of revitalising the old original JADE software on more modern computer platforms. The entire (with few exceptions e.g. the muon simulation code which seems eternally lost) JADE software is currently running at MPP in Munich. This includes even the original event display, which is now available in colour. Copies of Jan's slides are attached to these minutes.

4. Future use of JADE data and authorship models (Siggi Bethke)

So far, publications based on the reanalysis of JADE data within Siggi's group, were published with the principle authors in first place (i.e. students and postdocs not formerly being members of JADE, together with Siggi), followed by the term "and the JADE collaboration [1)], where the footnote points to Beate Naroska's JADE review in Physics Reports 04/1987. The original JADE authors in that reference, as it turns out, have not been "unpacked" by publication servers such as SPIRES, so that one can find all these papers by searching (e.g. using "find cn jade" at SPIRES) for JADE, but not by searching for single old-JADE authors (like "find a bartel"). Paper drafts were usually read and commented by a small standing JADE editorial board, i.e. by Rolf Felst, Eckhard Elsen and Jan Olsson.

Siggi presented two further, alternative authorship models when using JADE data in the future, which would 1) not include JADE as author, but give credit to the previous JADE collaboration in the acknowledgement; or 2) provide complete "open access" to all JADE data and software, without taking any official responsibility for any future publication based on these data.

The collaboration welcomed solution 1) but would like to make sure that such papers will be found under the name of JADE. In order to find out how this should/could be done, Siggi was asked to inquire with people from SPIRES.

The open access solution was not liked much, partly because it would require quite some additional work to provide all files and software for the "public", and also because JADE never prepared for such a move when it was still running.

Siggi also gave some additional information about the ongoing process of an international workshop aiming at preserving data (and software) of big HEP experiments world-wide. The hope was expressed that the JADE heritage could be well adapted into such an effort.

Siggi's slides are attached to these minutes.

5. AoB:

There were no further topics under "any other business"

6. Adjourn:

The meeting adjourned with warmly thanking Siggi for the initiative to arrange the meeting. The proposal to schedule the next full JADE meeting in 20 years was met with scepticism. An interval of 5-10 years was deemed more adequate. Again, an appropriate occasion should be found. People were asked to keep their contact addresses updated with SB, RF, EE or US.

6. Slide show

O(200+) scanned photos and slides from the good old JADE days, from construction until the final end-of-JADE-party, were collected and presented in an almost unsorted slide show. These slides will be put on the JADE webpage at MPP,

wwwjade.mpp.mpg.de ,

however due to lack of manpower for this project it may take a while until this will be done. An email notice will be sent around once all files have been posted there.

The meeting dissolved from the slide show and continued at the DESY bistro where drinks and dinner were available.

(S. Bethke, E. Elsen and J, Olsson)

Welcome everybody !

Quite some time has passed, since we had the last JADE-meeting and I hope we all still recognise each other.

The initiative to call for this meeting and also a large part of the work to organise it was taken by Siggi Bethke and we all have to thank him therefore.

Siggi claims, that his initiative was triggered by Howard Mills, who lives with his family near Hamburg but can not be here today due to vacations, I suppose.

A few others are not here since they are no longer with us at all and its probably the right time and place to shortly commemorate these former colleagues and friends.

The first who left us, if I remember correctly, was Peter Dittmann, who made important contributions to the JADE software and who died in a tragic mountain accident.

He was followed by Teruhiro Suda from Tokyo, who was responsible for the mechanics of the lead glass counters, and left JADE relatively early to take back in Japan a position in cosmic ray physics. He died lecturing in a physics school in India.

Bice Zechi-Zorn from the University of Maryland joined JADE when the PLUTO group was dissolved. She passed away shortly after finishing the determination of the eta-2photon decay width which she performed together with her husband and Jan Olsson. Also Gus Zorn and Bob Glasser from the Maryland group are no longer with us.

A leading figure in the early days of JADE was Shuji Orito, who was heading the Tokyo group of JADE in Hamburg. He gave the first presentaton of JADE-results at the famous lepton photon conference at Fermilab 1979.(Today we can celebrate it´s 30^{th} anniversary.) Later he inherited Koshibas position at the university of Tokyo. He passed away after an apoplexity about 10 years ago.

A person of similar importance for JADE was Dieter Cords . He was in charge of the on-line data acquisition and was in his calm and competent manner a person of great influence. He left DESY and JADE for SLAC and went later to the electron accelerator in Pensylvania. He died by a heart attach hiking with his son in the mountains.

More recently Beate Naroska, Yoji Totsuka and Don Clarke left us.

Beate had worked on electroweak interference in muon- and tau-pair production and gained great expertise in this field. She also wrote the big summary paper on JADE results which appeared in Physics Reports. Cheerful as she was, she would have enjoyed our meeting today.

Yoji Totsuka was, as all members of the Tokyo group heavily involved in the construction of the lead glass detector and had analysed, after the start of data taking, the 2 photon annihilation. He was relatively early called back to Japan to construct water Cerenkov counters. The first one was aiming for the detection of proton decay and was later tuned for neutrino physics. It was followed by the famous huge Kamiokande detector, which discovered neutrino oszillations. In the last years before his illness Totsuka was director of the KEK lab.

Don Clarke from the Rutherford group was responsible for the construction and operation of the z-chambers, if I remember correctly. His technical skill and competence were of great value also later in the H1 experiment at HERA.

I hope, this list is complete and I don´t have to add further names.

They were all part of Jade as *`we were Jade and Jade was us´* as Robin coined it.

As you remember, at the time when PETRA was still running as an e^+e^- collider we were in competition with 3 other experiments at PETRA and later also with the experiments at PEP. JADE was of cause best detector and in many respects the best experiment at PETRA. To pick just a few topics as a reminder:

We were the front runners in the field of electro-weak interference,

and were leading the field of jet-analyses ,

string fragmentation, the observation of it effects long debated by the other PETRA experiments, is now a standard procedure,

and 4-jet events were first identified by JADE

beautiful results were obtained in the field of b-physics and by analysing 2-photon collisions.

But we were in these days always in tight competition with the other experiments, which becomes also evident from the citation index, a list Siggi Bethke has prepared.

In the long run, however, JADE is unique and this is so because of the efforts of Jan Olsson and Siggi Bethke and his team.

As you know, in the old days the data were stored on magnetic tapes and at the end occupied quite some space in the computer center. Jan will give you the full story in a moment. In short: we were later asked whether these tapes could be put onto the waste, as nobody was anymore interested in the data and the tape reading machines would be no longer available. It was Jan who then copied the data onto more modern storage devices.

Two years later Siggi Bethke realised that these data could be used to apply the theoretically more advanced jet analysis techniques (like higher order PQCD, matching of PQCD and lln approaches etc.) developed for LEP and determine the strong coupling alphas at PETRA energies. With his group, this is a copy of their Webpage, he embarked on it, first in Aachen and then in Munich and they produced since 1998 up to now 10 papers, which were all well received and created considerable interest in the community. As Siggi will show you in a moment, they allow (because of its running) for a determination of alphas with similar precision as the statistically much better data from LEP and HERA.

Probably most of you are not aware, that results from JADE data are still published today and we should discuss and settle today, if possible, the question of authorship on future publications.

Enjoy the following presentations and especially the time thereafter mnnnnnnand the dinner to night.

PETRA – publications (Aug. 2009)

	CELLO	JADE	MARK-J	PLUTO	TASSO
journal publications	64	80	13	50	88
citations	2820	5715	610	2943	6562
average citations / paper	44	71	47	59	75
renowned papers (500+ cites)	0	1	0	0	0
famous papers (250+ cites)	0	2	0	1	2
Very well known papers (100+)	4	10	1	5	21

PETRA – most cited publications (Aug. 2009):

1) Experimental Studies on Multi-Jet Production in e+ e- Annihilation at PETRA Energies.
By JADE Collaboration (W. Bartel et al.). DESY 86/086, Aug 1986. 20pp.
Published in Z.Phys.C33:23,1986. Also in Moriond 1986: Hadronic v.2:53
(QCD161:R34:1986:V.2) (*Bethke author in proceedings*)

| Cited 728 times |

2) Experimental Investigation of the Energy Dependence of the Strong Coupling Strength.
By JADE Collaboration (S. Bethke et al.). DESY 88/105, Jul 1988. 14pp.
Published in Phys.Lett.B213:235,1988.

| Cited 475 times |

3) Evidence for Planar Events in e+ e- Annihilation at High-Energies.
By TASSO Collaboration (R. Brandelik et al.). DESY 79/53, Aug 1979. 18pp.
Published in Phys.Lett.B86:243,1979.

| Cited 454 times |

PETRA – most cited publications (Aug. 2009):

4) Evidence for Gluon Bremsstrahlung in e+ e- Annihilations at High-Energies.
By PLUTO Collaboration (Christoph Berger et al.). DESY 79/57, Sep 1979. 18pp.
Published in Phys.Lett.B86:418,1979.

| Cited 369 times |

5) Jet Production and Fragmentation in e+ e- Annihilation at 12-GeV to 43-GeV.
By TASSO Collaboration (M. Althoff et al.). DESY-83-130, Dec 1983. 113pp.
Published in Z.Phys.C22:307-340,1984.

| Cited 339 times |

6) Observation of Planar Three Jet Events in e+ e- Annihilation and Evidence for Gluon Bremsstrahlung.
By JADE Collaboration (W. Bartel et al.). DESY 79/80, Dec 1979. 19pp.
Published in Phys.Lett.B91:142,1980.

| Cited 300 times |