Minutes Contact person meeting, 25 – 26 November 2004, Münich

Participants: Riccardo D'Auria (Politecnico di Torino), Ioannis Bakas (Patras), Constantin Bizdadea (Craiova, Romania), Matthias Blau (Neuchâtel), Riccardo D'Auria (Torino Politecnico), Jean-Pierre Derendinger (Neuchâtel), Mees de Roo (Groningen), Bernard de Wit (Utrecht), Paolo Di Vecchia (NORDITA), Sergio Ferrara (Frasacati), José Figueroa-O'Farrill (Edinburgh), Pietro Frè (Torino), Luciano Girardello (Milano Bicocca), Cesar Gomez (Madrid), Joaquim Gomis (Barcelona), Marc Henneaux (ULB), Roberto Iengo (SISSA), Elias Kiritsis (Ecole polytechnique), Costas Kounnas (ENS-Paris), Alberto Lerda (Alessandria), Maria Lledo (Valencia), Dieter Lüst (president, Münich), R Marotta (Napoli), Nikita Nekrasov (IHES), Hans-Peter Nilles (Bonn), Emil Nissimov (Sofia), Niels Obers (NORDITA), Silvia Penati (Milano Bicocca), Marios Petropoulos (Ecole polytechnique), Franco Pezzella (Napoli), Solange-Odile Saliu (Craiova, Romania), Volker Schomerus (SPhT Saclay), Alexander Sevrin (secretary, VU Brussel), Samson Shatashvili (Dublin), Dimitri Sorokin (Padova), Kelly Stelle (Imperial C. London), Stefan Theissen (AEI Potsdam), Toine Van Proeyen (Leuven), Daniela Zanon (Milano I), Bruna Vives Prat (Münich adminstration).

Larus Thorlacius (Reykjavic) apologized and Reykjavic is represented by Paolo Di Vecchia.

1 The old contract

The final report of the *previous network* can be found on the old web site: itf.fys.kuleuven.ac.be/~tmr/rtn.html . From now on, the network link on your website should refer to the *new network*:

www.theorie.physik.uni-muenchen.de/~luest/forcesuniverse.html .

2 Main parts of the new contract

The new contract has been signed by München and has started on November 1 2004. All 25 contractors should have received the contract forms. The authorized individual of his/her institute has to sign it and it has to be

returned to Dieter (and *not* to the EC) at Münich *before* December 15 2004. Failing to do so automatically bars you from the contract...

This also means that from November 1 2004 onwards, you have to acknowledge the *new* network in all the joint publications. We would very strongly advise you to acknowledge the network in all your publications, so including the non-joint ones! The acknowledgment - for a contractor - should be: The authors are supported by the European Commission FP6 program MRTN-CT-2004-005104. For a subcontractor it reads: The authors are supported by the European Commission FP6 program MRTN-CT-2004-005104 in which the authors are associated to the NameOfTheContractorOnWhichY-ouDepend.

The new contract contains several parts of which the most relevant are the *CPF editor* and Annex I. An extensive summary of the most salient parts of the contract can be found on the webpage in the file *ContractForcesUniverse.pdf*. Read it!

2.1 CPF editor

An important part is the CPF editor. It is a Microsoft Excel document, ForcesUniverse-CPF-formsFinal.xls, with many macro's and scripts. If you have problems with those, you click within Excel on "Tools", then on "Macros" and finally on "Security". There you opt for "Medium security" setting. Whenever you now open the CPF editor it will prompt you whether you want to enable the macro's: answer "yes"!

The forms start in section 1A with a brief description of our program. One finds each of the 25 nodes under section A2a. To find yourself, you only need to know the number you got assigned (get it from e.g. from pages 2 and 3 in *ContractForcesUniverse.pdf*).

Section A4a shows distribution of personnel for each node. Note that the distribution of the months has been assigned to a specific year for each node. This is just a formality which can easily be changed (after contacting Dieter). So everyone should go over this and send eventual remarks/changes to Dieter. A4b provides a summary of A4a. Section A5a gives the factual financial information for each node.

Section A5b gives an overall summary of the budget. The distribution of the resources is quite fixed. Small shifts can be made but keeping 65% for personnel (sections A - E). Shifts among nodes are possible. The ratio of the number of experienced vs. young researchers cannot be changed... The

payments are made directly from Münich to the contractors who have to take care of their subcontractors if any.

Sections A6, A7 and A8 are irrelevant to you.

Section A9 gives rough indication of planned network events. Note that every contractor needs to provide a financial certificate at midterm and final term. The contractor is fully responsible for the subcontractor as the financial audit certificator.

Section A10 is also irrelevant.

2.2 Annex I

You find it back on the webpage as the file AnnexIForcesUniverseFinal.pdf. It describes the scientific program, including the research topics. Once more, you will find a brief summary in the file ContractForcesUniverse.pdf.

2.2.1Part A

Part A contains the list of the contractors and a brief overview of our research project.

2.2.2Part B

Part B centers on the concrete implementation of our goals. It explains our five main research topics:

- 1. Basic constituents: strings and branes;
- 2. Symmetries: supersymmetry, duality symmetry and infinite dimensional algebras;
- 3. Gauge theories and (super)gravity: several correspondences;
- 4. Compactifications: brane world models and connection to the standard model;
- 5. The early universe: supergravity, string and brane cosmology;

in some detail and lists the distribution of various topics among the participating nodes (this is as before flexible).

Part B lists as well the deliverables and milestones together with a time table. Have a look at this because it is important (e.g. yearly reports).

Subsequently Training and Transfer of Knowledge is examined. Important here is that the EC means training not only for a scientific career but training for a general development towards a future career which mightvery well be outside of phics! E.g. the people hired by the network have to learn how to give good talks, represent themselves, ... Monitoring of this has to happen at the local level: every node needs to develop a written career development plan. Read the instructions! It should among other things summarize the scientific duties/objectives of young researchers and it as to be updated anually. These reports are collected by the contact persons who forward them to the responsible person within the network. Make this career development plans according to the local criteria/laws which apply to you. This is not a part of the local work contract (if needed you can state this

The most important training activities of our network are the annual network workshop, the annual winter school and the working groups together with their mini-workshops.

2.3 The budget

explicitly in the work contract).

The budget can be found in ForcesUniverseBudget.pdf in our web pages. It consists of 8 parts, labelled from A through H.

- A: This is the salary to be paid to early and experienced researchers. We foresaw regular contracts for experienced researchers (= post-docs) and stipends (with Rumania and Bulgaria as exceptions) for early researchers (= pre-docs). Regular contracts in our project. This is to a large extent irreversible. If indeed problems with this arrangement do arise (as you were polled on this point long before the contract was finalized, there should be no problems), please contact Dieter as soon as possible! Note that you can complement the salary with money from other (meaning non-EC) sources.
- B: A travel allowance which is paid per 12 month period. It covers visits of the young or experienced researchers to his/her home institution/country. The amount varies from 500 through 1.000 euro, depending on the distance.
- C: A mobility allowance of 800 euro (500 euro) for a married (unmarried) researcher *per month*. The researcher does not need to give any

accounting for this allowance. In other words, it is a nice extra on top of his or her salary.

- D: A career exploratory allowance: it is only given to fellows with a contract of at least one year and it amounts to a lump sum of 2000 euro. Again, no further accounting is asked. Morally speaking it is meant for financing job interviews, travels for giving seminars at places the person would like to get a job in the future, etc.
- E: Participation expenses of the young researchers paid by this contract. It amounts to 4800 euro per researcher per year. It can only be used by the researcher (pre- or post-doc) paid by the network for his expenses when participating to one of the network events and visits to other nodes of the network! So a way to handle this is that when you want to have a young researcher (paid by the network) of another node to give a seminar at your place, the visiting young researcher could pay the whole of his visit from this budget.
- F: All people in the group can use this for his or her networking expenses. By this we mean visits to other nodes, the participating in network activities such as workshops and schools, ... Note that we keep the previous arrangement: when visiting a node, the visitor pays his travel expenses while his host pays the local expenses (with a possible exception for young researchers paid by the network, see under E).

If you present the network at a non-network event within Europe, you can still use this money (only after notifying Dieter way ahead of this) – this use is discouraged. It cannot be used for any travel outside Europe. You can only invite people from within the network with this money (not even people from the networks related to ours). Outside people can only be invited for network events.

These funds cannot be used for conference dinners or other social events. However coffee breaks - an essential ingredient for our functioning – are ok. We will probably require a small (100 \sim 200 euro) subscription fee for the schools and workshops to cover for those social events.

• G: Each contractor gets 2000 euro which pay for the two required audit certificates (one at mid-term and one final).

• H: Overhead: (A+B+C+D+E+F)/10. Note, G is not included in this. This money will most probably be absorbed by your university administration and be mostly useless to you. However if your administration complains that the money under G is insufficient for the financial audit, tell them to use the overhead for this... Finally, the Münich node is making all possible efforts such that no overhead is taken from the 80.000 euro administration costs. If this overhead (8.000 euro) can indeed be recuperated, it will be used for conference dinners and so.

The first payment will cover 80% of the total expenses for the first 18 months and amounts to a total of 525.146 euro. The payment will be made after all contractors have signed the contract. We foresee it for January 2005.

3 Task assignment

3.1 Managment

The coordinator is *Dieter Lüst* assisted by the deputy coordinator, *Alexander Sevrin*. The so-called *executive board* consists of all the contact persons. As in the past, its composition is flexible (however the rule of thumb: 1 representant per node or subnode remains).

Core responsabilities within the network are taken by the scientific secretaries:

- Outreach: Kelly Stelle. He is as well responsible for the dissemination of the network achievements.
- Training of young researchers: Daniela Zanon (who collects the career development plans as well).
- Workshops and research issues: Elias Kiritsis.
- Recruitment and contact person for the appointed ESRs/ERs: Antoine Van Proeyen assisted by Anna Ceresole who will take care of the equal opportunity policy.
- Maintenance of the web page will be done by *Dieter Lüst*.
- Representative of the young researchers: to be decided upon the first hiring round.

3.2 Working group leaders

They assist the executive board in all scientific issues; they structure and organize working groups at the schools and topical workshops. They are assisted by young researchers. They are appointed for two years. Their "liaison officer" is Elias Kiritsis who will see that there is not too much overlap. The working group leaders should also keep a watchful eye on the activities of the young researchers. The working group leaders are,

- 1. Basic constituents: strings and branes; Mario Petropoulos and Volker Schomerus.
- 2. Symmetries: supersymmetry, duality symmetry and infinite dimensional algebras; *Ioannis Bakas* and *Dimitri Sorokin*.
- 3. Gauge theories and (super)gravity: several correspondences; Niels Obers and Sylvia Penati.
- 4. Compactifications: brane world models and connection to the standard model; Costas Kounnas and Dieter Lüst.
- 5. The early universe: supergravity, string and brane cosmology; *Pietro* Frë and Matthias Blau.

Network Events 4

Note that schools/workshops do not necessarily have to be organized at one of the nodes. In view of the increasing size this will indeed become unavoidable.

4.1 Schools

4.1.1 2005: Trieste

It takes place from January 31 through February 4, 2005. Note: the application deadline is December 19, 2004! The program consists of five lecture series:

• Cachazo: Twistor String Theory and Perturbative YM

• Kachru: Flux compactifications

• Klemm: Topological String Theory

• Rubakov: Cosmology

• Zaffaroni: non-AdS/non-CFT.

There will be five working groups in parallel.

4.1.2 Future schools

• Utrecht is candidate for 2006 (or perhaps 2007).

- Valencia is candidate as well.
- Sergio Ferara makes a firm commitment that the school can be organized at CERN in 2007. Neuchâtel will provide full practical assistance.

Final decision for both 2006 and 2007 will be taken at the Trieste meeting. There was a suggestion to have the school in December. There was almost a full consensus that this practically inconvenient and for many even impossible. So for the future it will be as early as possible in January.

4.2 Workshops

There is a proposal from George Zoupanos to have it in Corfu in September 2005. From September 4 through 24 he has his 3-yearly school. Our meeting could happen in that framework from September 18 through September 24, 2005. There will be excellent hotel rates (50 euro/night in the Hilton, 10 euro/night for student housing, ...). The board is essentially unanimously in favor of this proposal. *Ioannis Bakas is* appointed as the main scientific organizer.

4.3 Workshops, working groups

Working group leaders are asked to think about working group meetings and smaller workshops. The costs for participation at these training events should be paid by the individual contractors. Contrary to the other two events there is no central funding foreseen. A first event which can be seen in this context is the *Third Solvay Workshop on Dark Matters* from May 18 through May 20, 2005 at Brussels.

Hiring of young researchers – postdocs 5

5.1Postdocs = experienced researchers (ER)

- 1. They have a research experience of 4 through 10 years after their masters degree.
- 2. The contract duration must be between 3 and 36 months.
- 3. Mobility: he/she should not have the nationality of the host country. Exception: if he/she is a national of the host country, then he/she should have spent at least 5 years in a non-member state (excluding the associated states, so the USA qualifies, Israel e.g. not). He/she should not have been previously working/studying in the country which hires him for more that 12 months.
- 4. The researcher can be a national of a non-member state. However the total number of months assigned to non-member state nationals cannot exceed 30 % of the total amount of men months in the contract.
- 5. Their yearly salary is 47.000 euro for a regular employment contract (all ER's on our contract are like that) and 23.500 euro for a stipend (not relevant in our situation). This is corrected by a country dependent factor (whose range is approximately $0.7 \sim 1.3$).
- 6. He/she must be hired by one of the contractor institutions, not by the subcontractors.
- 7. He/she should always be hired with a full time contract.
- 8. If he/she is hired for more than 6 months, a career development plan has to be established.
- 9. The contractor must ensure that the ER enjoys the same social security (esp. health insurance) as other employees in the country where the hiring takes place.
- 10. The ER must fill in questionnaire at end of contract + follow up questionnaires up to 2 years after the end of his contract!

- 11. The address of the ER has to be kept filed for 3 full years following the end of the contract. Put differently: the contact person has to follow up the ER three more years after the end of his/her contract.
- 12. The consortium must make all possible, sensible measures to ensure that 40 % of the ER's are female! Under the previous contract, we did not hire a single female scientist on network money. This is extremely bad. We have to avoid this under the current contract. So we ask the following: if you hire e.g. two post-docs, one with network money and one from other sources. Suppose one of the people you want to hire is female, please put her on the network!
- 13. Monthly mobility allowance of 800 (married) or 500 (unmarried) is foreseen.
- 14. Travel allowance to home country for each period of 12 months between 250 and 1000 euro, depending on distance between host and home country, is foreseen as well.
- 15. There is a career development allowance of 2000 euro if he/she is hired for not less than 1 year. He/she gets it like this, no further accounting needed.
- 16. Support for travel to network activities and/or visits to other nodes is provided up to a total of 4.800 euro per year. We could adapt the rule of thumb that for a visit to another node, the ER pays for both the travel and local expenses.

5.2PhD students = early stage researchers (ESR)

- 1. Scientist without PhD within their first 4 years after receiving university (master) degree. The starting point for the counting is country dependent but defined as the time that the person is allowed to enter graduate school. Note, if the student needs 5 or more years for his PhD, he/she does not qualify anymore.
- 2. Contracts are for minimally 6 months.
- 3. The yearly living allowance is 15.275 euro for a stipend and 30.550 euro for a contract. Except for Romania and Bulgaria, all ESR's are stipends!

- 4. Points 4 16 for the ER's hold for the ESR's as well.
- 5. He/she can return to his home institution and pass his PhD there. The contract does not stipulate where he has actually to pass his PhD.

5.3 Hiring policy of ER

Some general principles:

- We will avoid internal competition among nodes. E.g. we will respect the preference for institutes that the candidate expressed, in other words don't jump over your colleagues...
- All information concerning hiring should be available to all other nodes. E.g. if you want to make an early offer (from non-network sources) to someone who applied through the webpage, you should let this be known to the network.
- For hiring of people on network money, all decisions are taken in the common network meeting. If you want to hire someone who has put your institute as first choice then you can tell him early on that you will offer him a job but that there is the proviso mentioned before.
- Non-network positions are not subject to this restrictions but you need to inform anyone you jump over. In fact, if possible, please respect the choices of the candidates. If possible use the general meeting as well.
- The web page based application is very useful and comfortable. After this round it will move to München. It has to, as the Leuven server will soon disappear!
- The meetings discussing candidate post-docs is experienced as extremely useful and will continue. In Trieste there will be two meetings (on monday and wednesday) discussing the candidates. Elias Kiritsis, Marios Petropoulos, Pietro Fré and Matthias Blau will prescreen a significant number of the applications. Toine Van Proeyen will coordinate this. Other volunteers should contact Toine.

Hiring policy of ESR 5.4

We have two options, either we exchange students (can be from inside or outside of our network) or we use these positions as the starting (mobility has to be taken into account!) year for a full PhD curriculum. While the first option is clearly favored, there is a consensus that people are essentially free.

Any candidate should apply through the web page (even if everything is already arranged beforehand). The web page will be further adapted (elimination of deadline) to this effect. The incoming applications will be evaluated every three months by Toine and Dieter.

Partnerships are possible. A student could e.g. spend a year at node A, followed by a second year at node B.

All contact people are encouraged to stimulate their (good) students to use the exchange opportunities offered by this contract. Advertise it on your own webpage!