

Project Planning Summary (AA / BMBF)

Project name

Efficient statistical tools for networks and their applications

Applicant institution

Leipzig University

| # | Impact | Success indicators | Information sources/ methods |
|-----|--|--|--|
| | <p>Project objectives (outcomes) <i>What are the specific project objectives? Project objectives refer to the specific use and application of the results (outputs)</i></p> <p>Add further rows to the table to enter further project objectives (outcomes).</p> | <p><i>Which quantitative and qualitative indicators can be used to measure, whether the respective project objectives have been reached?</i></p> <p><i>Note: Ideally, only one indicator should be listed per project objective (outcome). However, it may be necessary to consider more than one indicator to record results and make statements regarding the achievement of objectives.</i></p> | <p><i>How can the data be gathered that is required to assess the indicators (information sources, methods if applicable)?</i></p> |
| OC1 | Consolidate the relationship between all partner groups | Joint publications, co-supervised/co-mentored Dissertations | Pubmed, Web-of-Science, ArXiv |
| OC2 | New collaboration opportunities will be identified, especially in regard to junior scientists research network expansion | Grant applications to national funding agencies on research topics developed during cooperation | Web pages of funding organisations |
| OC3 | Continuation of collaboration for full period of PROBAL funding | Renewal of proposal to DAAD PPP Germany/Brazil for second funding period to complement 4 years of PROBAL funding | Proposal |
| | <p>Results (outputs) <i>Which specific results of the measures/activities are envisioned for reaching the project objectives?</i></p> <p>Add further rows to the table to enter further results (outputs).</p> | <p><i>Which quantitative and qualitative indicators can be used to measure, whether the results have been achieved?</i></p> <p><i>Note: Ideally, only one indicator should be listed per result (output). However, it may be necessary to consider more than one indicator to record results and make statements regarding the achievement of objectives.</i></p> | <p><i>How can the data be gathered that is required to assess the indicators (information sources, methods if applicable)?</i></p> |

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| OP1 | In person meetings in Brazil and Germany will enable all involved scientists to engage in topic specific discussions as well as get first hand impressions of the work and living environments for future collaborations and research stays. | Talks will be organized every year together with two short courses/workshops to also allow other students and researchers to participate. | Minutes of meetings will be reported |
| OP2 | Joint publications will strengthen the scientific footprint for all participating researches, especially young scientists, which will be advantageous for funding applications of their own. | The methods developed here impact several fields of science. Random networks are ubiquitous and helpful to analyze chemical compounds, social interactions, metabolic pathways, neural networks, and the internet. We expect that the works generated in this proposal will have a high impact, given the widespread interest in random networks. | Pubmed, Web-of-Science, ArXiv |
| OP3 | Junior scientists will develop a set of skills, from collaborative software development via open source platforms like GitHub to planning skills for software and project development as well as distribution and maintenance of open source software. | All developed algorithms will be implemented as reference software packages e.g. in R or Python libraries. | GitHub, CRAN, PiP, Conda |
| OP4 | Junior scientists will be tightly integrated in both, report composition as well as reapplication for DAAD funding, thus providing them with hands-on experience in funding acquisition and project execution. | As the funding periods of DAAD ends after 2 years, while the PROBAL funding ends after 4, we will apply for a second round of funding towards the end of the German project time. | Follow-up application |
| | Measures/activities ¹ <i>List the intended measures/activities (use the title of the measure/activity used in the project description)</i> Insert new rows in the table for further planned measures/activities. | <i>Please assign the measures/activities to the desired project results (outputs) by entering the corresponding number in this column (OP1, OP2, etc.)</i> | <i>Please assign the measures/activities to the desired project objectives (outcomes) by entering the corresponding number in this column (OC1, OC2, etc.)</i> |
| M/A1 | Kickoff meeting | OP1, OP3 | OC1, OC2 |

¹ A measure/activity can be presented on its own or as part of a group; e.g. 'five events', provided that these contribute to the same project objective (outcome).
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|------|--|--------------------|---------------|
| M/A2 | First travel of the German group to Brazil | OP1, OP2, OP3 | OC1, OC2 |
| M/A3 | Second visit in Germany | OP1, OP2, OP3, OP4 | OC1, OC2, OC3 |
| M/A4 | Second visit in Brazil | OP1, OP2, OP3, OP4 | OC1, OC2, OC3 |