

Summary on Survey

‘Course Offers 'Key Skills' for Doctoral Students’

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*Many Thanks for advice and helpful discussions for design of the survey to
Susanne Beckers*

*(doctoral candidate in Mathematics, member of the Lothar Collatz School)
and*

Stephanie Schruhl

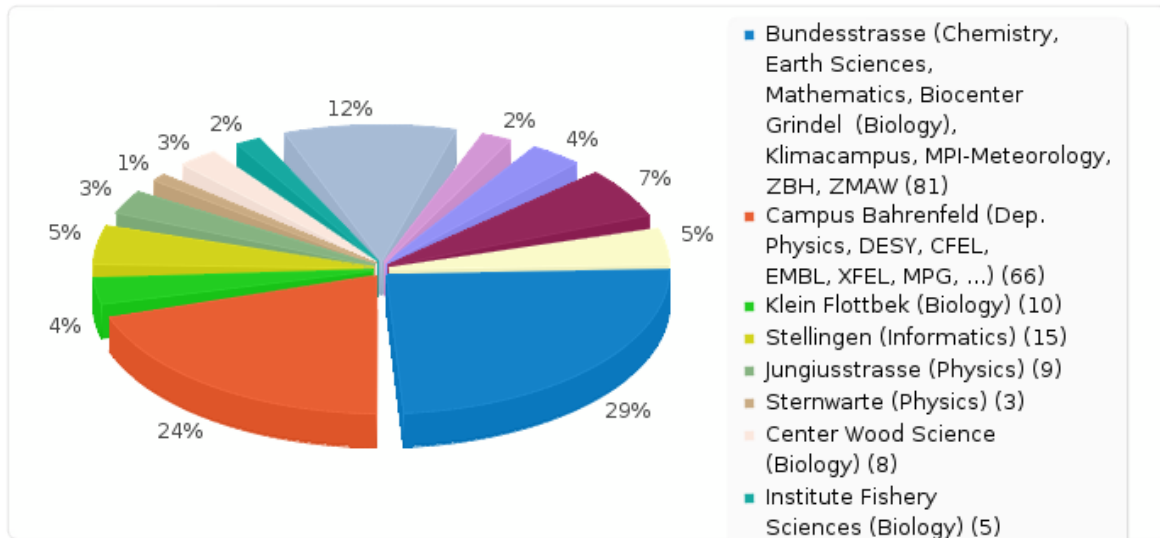
(doctoral candidate in Chemistry, member of IMPRS Ultrafast Imaging)

In summer 2013 we invited about 900 doctoral candidates at the Faculty for Mathematics, Informatics and Natural Sciences to participate in the survey. 279 responses are summarized in this document.

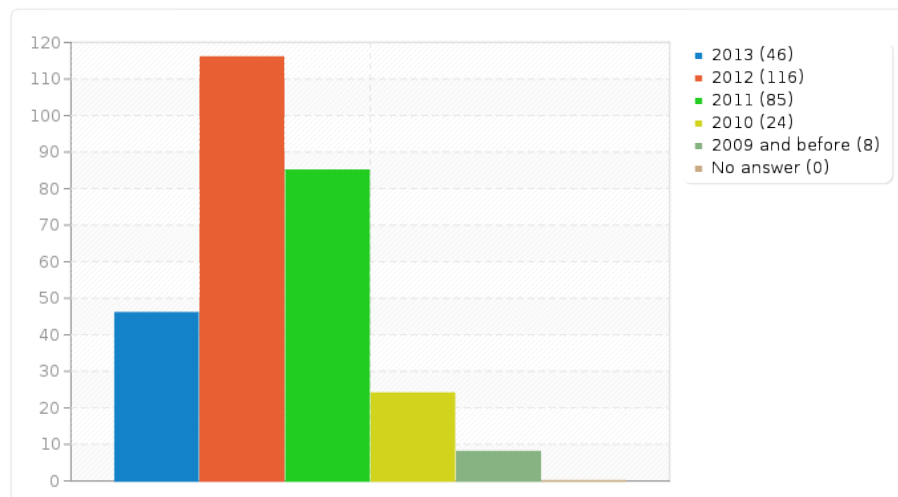
Outline of the survey:

- Question 1 – 4 gave information about the working field of the responding doctoral candidates. – page 2 -
- We asked for reasons why 70 % of the responding doctoral candidates so far did not attend a course in ‘Key Skills’. – page 4 -
- We received information about the course topics and course formats in case doctoral candidates participated already in courses. – page 5 -
- We asked whether course offers in the areas ‘general academic skills’, ‘language courses’ and ‘IT skills’ are of interest and received helpful information about topics that are of interest. – page 7 -

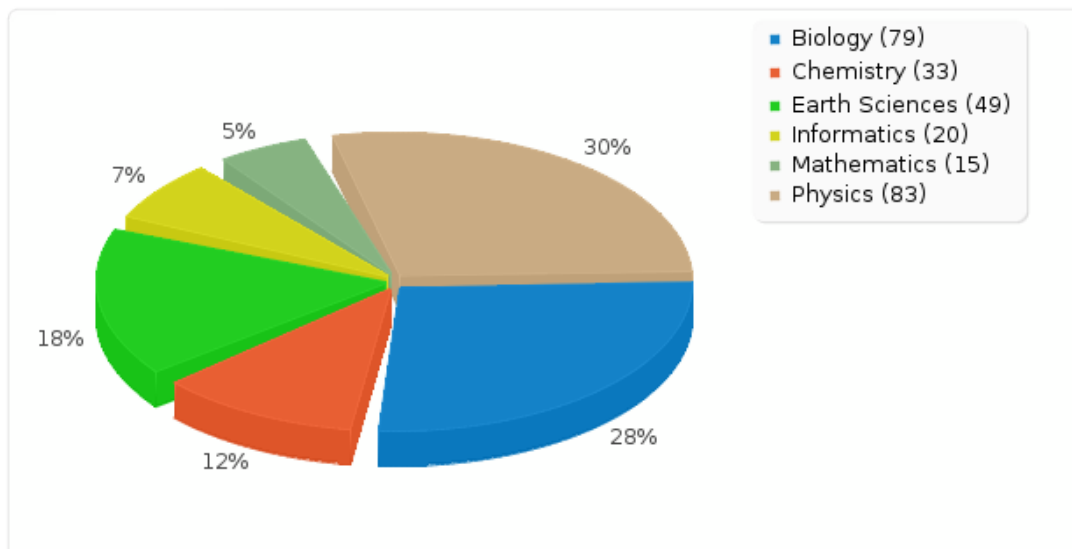
1 My workplace in Hamburg is



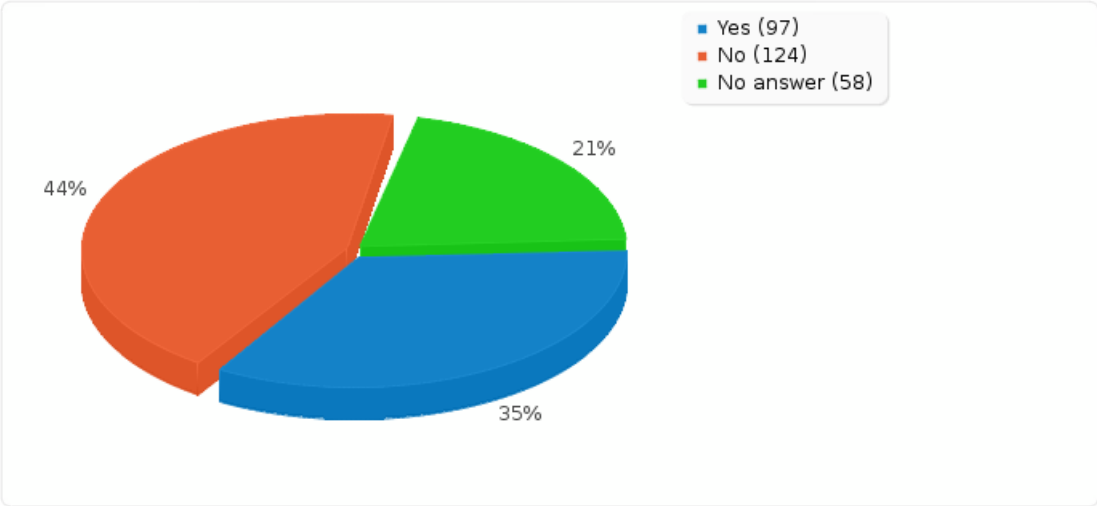
2 I started my doctoral project in



3 My PhD subject is



4 I am member of a graduate school or research training group

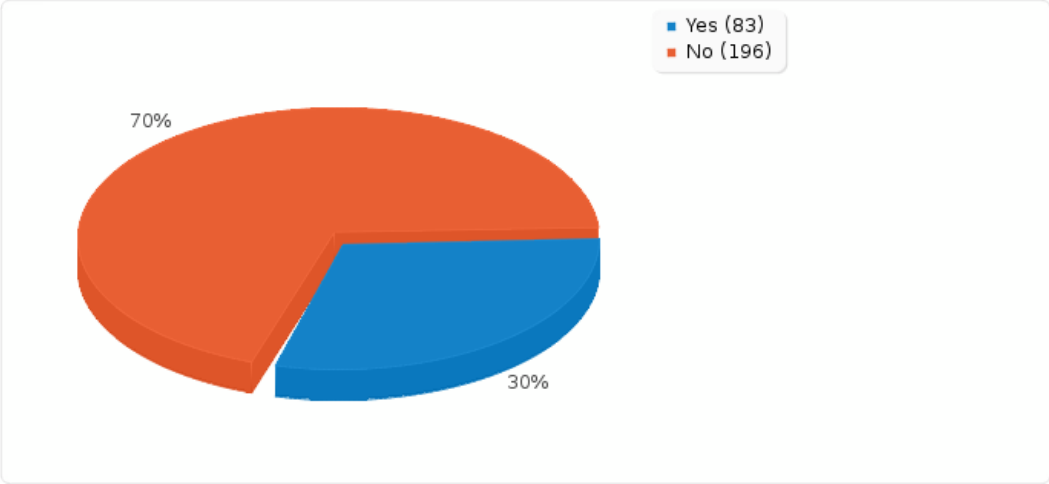


We asked for the workplace as this might help to keep the distance between courses and your work place as short as possible in the future.

The questions 1 – 3 show that responses to the survey came from all subjects in our faculty with the expected distribution of candidates being in the 1st, 2nd or 3rd year of their dissertation project. The responses show no bias to a certain subject or stage of the dissertation project.

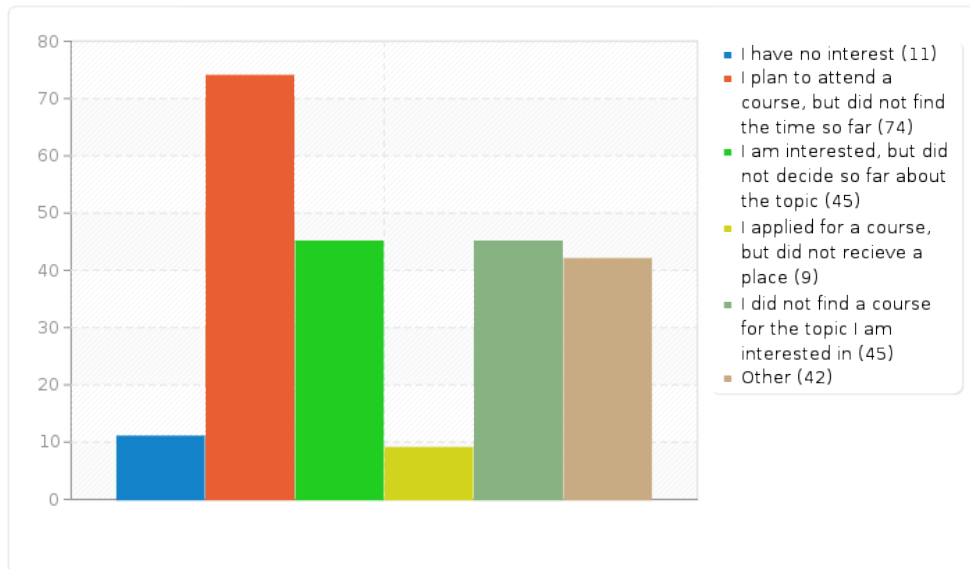
50 % of all answers came from members of graduate school or research training groups, while roughly 25 % of all doctoral candidates in our faculty are members in graduate programs.

5 Since I started my doctoral project, I attended a course or several courses in key skills



6 I have not attended a course in 'Key Skills', because

This question was only displayed when the answer to question 5 was no. Multiple answers were allowed.



6 ,Other' reasons:

- 6 answers - My workplace is not in Hamburg
- 26 answers - I did not know anything about such courses or how to apply for courses
- additional comments:
 - I am doing research in the lab
 - I have similar courses in my institute (EMBL)
 - there are some courses for master students that I want to attend, but they are taught in German.
 - I think it's not effective
 - Einstufungstest verpasst oder zu schwierig.
 - I don't speak German, and cannot find any courses in English
 - No time
 - I attend at a course End of June
 - I plan to do so in later stages of my PhD project
 - Most of them are in the middle of the day

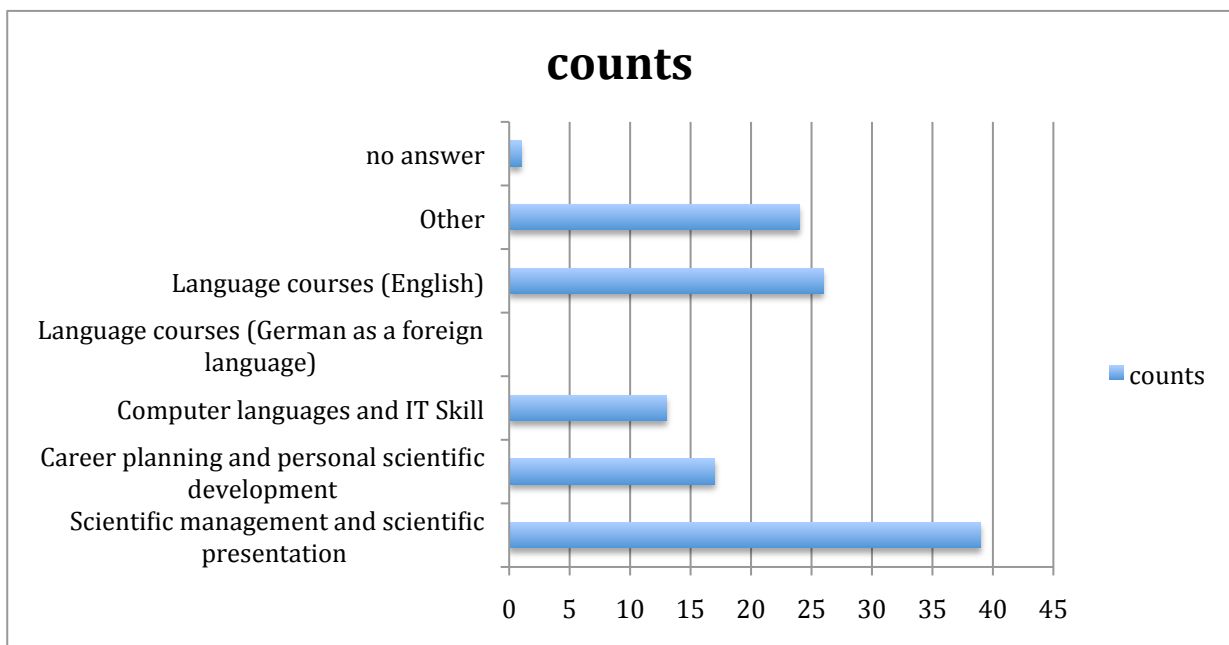
A not expected high number of responses show, that it is worthwhile to improve distribution of information about course programs.

7 Attended courses in ,key skills'

Following questions were only displayed when the answer to question 5 was 'Yes'. 83 doctoral candidates had the possibility to give information about courses they attended so far. The charts summarize 120 course descriptions given by 83 persons.

About 50 % of the doctoral candidates who gave information about courses are members in a graduate school or research training group. In comparison, about 25 % of all doctoral students at the Faculty for Mathematics, Informatics and Natural Sciences are members in graduate programs.

7a The topic was



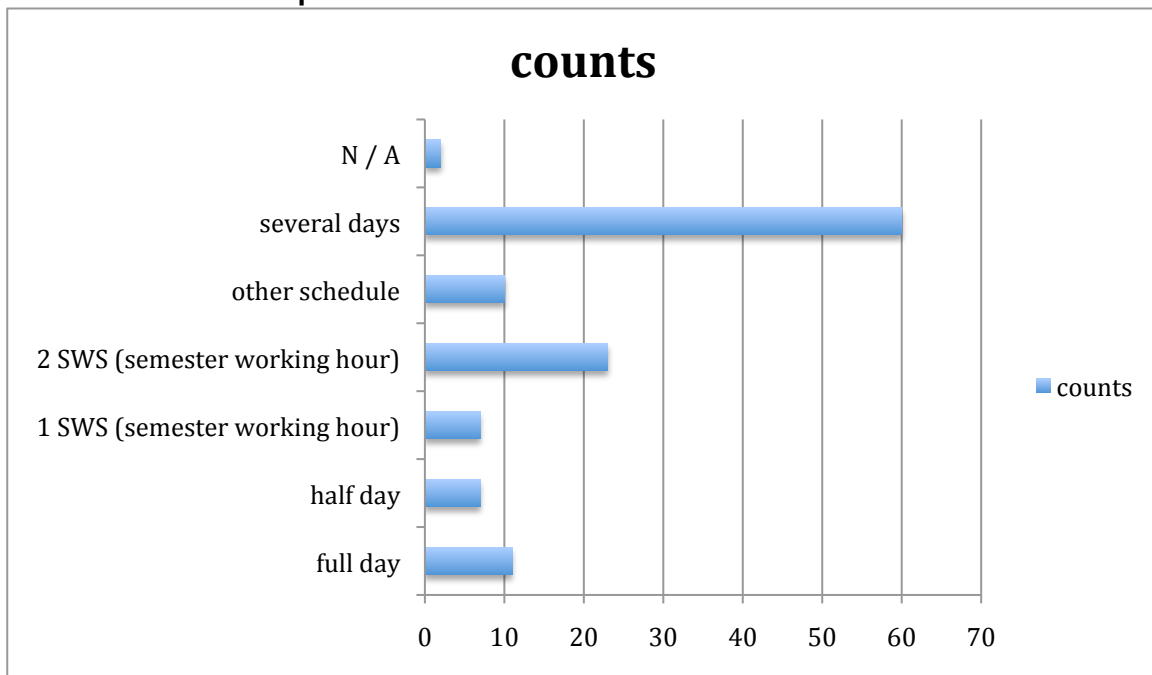
| | |
|--|----|
| 7a Other (summary and classification of 'free text' answers): | |
| scientific writing | 8 |
| personal and scientific development | 10 |
| research related | 6 |

7 b The course language was

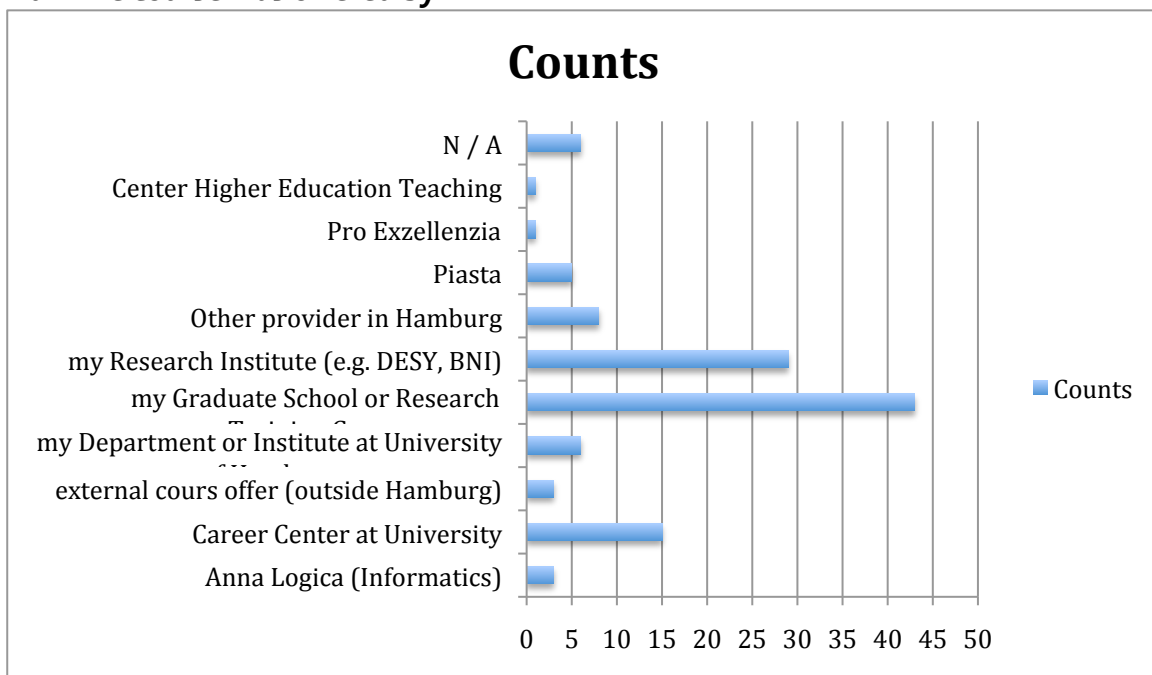
Course language

| | |
|---------|----|
| German | 84 |
| English | 32 |
| N / A | 4 |

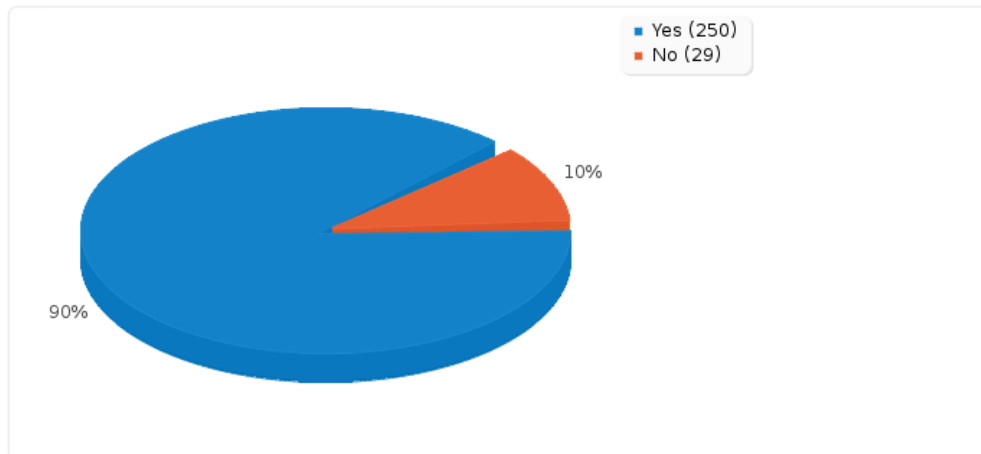
7 c The course took place



7 d The course was offered by



8 I am interested to attend (further) courses



9 Which key skill courses are of interest for your personal development and scientific career? Please select 0 to max. 3 topics.

| Topic | 1. | 2. | 3. | sum | % of sum |
|--|------------|------------|------------|------------|----------|
| Scientific Writing | 42 | 30 | 19 | 91 | 13,75 |
| Presentation Skills | 31 | 29 | 19 | 79 | 11,93 |
| Project management | 22 | 19 | 19 | 60 | 9,06 |
| Career possibilities in industry | 18 | 17 | 22 | 57 | 8,61 |
| Grant writing | 11 | 18 | 13 | 42 | 6,34 |
| Funding possibilities | 17 | 9 | 15 | 41 | 6,19 |
| Good scientific Practice | 13 | 11 | 14 | 38 | 5,74 |
| Time management | 12 | 13 | 11 | 36 | 5,43 |
| Sucessful research | 5 | 14 | 15 | 34 | 5,13 |
| Career and family | 9 | 7 | 14 | 30 | 4,53 |
| Career possibilities in Academia | 8 | 11 | 4 | 23 | 3,47 |
| Communication | 6 | 9 | 7 | 22 | 3,32 |
| Graphic design in scientific publication | 7 | 10 | 4 | 21 | 3,17 |
| Leadership | 5 | 7 | 8 | 20 | 3,02 |
| Buisness administration | 5 | 5 | 6 | 16 | 2,41 |
| Patent and legal aspects | 4 | 5 | 6 | 15 | 2,27 |
| Application training | 4 | 3 | 5 | 12 | 1,81 |
| Conflict management | 4 | 1 | 5 | 10 | 1,51 |
| Negotiation strategies | 3 | 2 | 4 | 9 | 1,35 |
| Team work | 2 | 3 | 1 | 6 | 0,9 |
| total | 228 | 223 | 211 | 662 | |

10 Which key skill courses from the area IT skills are of interest for you?

Please select 0 to max. 2 topics.

| Topic ,IT Skill' | 1. | 2. | Sum | % of sum |
|---|------------|------------|------------|----------|
| Specialized Software from my research project | 66 | 41 | 107 | 27,8 |
| Statistics (R, SPSS, ..) | 41 | 29 | 70 | 18,2 |
| Latex | 33 | 27 | 60 | 15,6 |
| C++ | 30 | 26 | 56 | 14,5 |
| Matlab | 25 | 26 | 51 | 13,3 |
| Fortran | 12 | 10 | 22 | 5,3 |
| Mathematica | 9 | 9 | 18 | 4,7 |
| Total | 216 | 168 | 384 | |

11 Which language courses are of interest for you?

Please select 0 to max. 2 topics.

| Language course | 1. | 2. | sum | % of sum |
|--|------------|-----------|------------|----------|
| English for scientists (native speaker) | 15 | 10 | 25 | 9,0 |
| English for scientists (non-native speaker) | 134 | 11 | 145 | 52,3 |
| German as a foreign language (A1) | 7 | 4 | 11 | 4,0 |
| German as a foreign language (A2) | 16 | 8 | 24 | 8,7 |
| German as a foreign language (B1, B2) | 14 | 20 | 34 | 12,3 |
| German as a foreign language (conversation course) | 9 | 25 | 34 | 12,3 |
| total | 195 | 82 | 277 | |