Objective

This proposal brings together research teams from the EU (Germany, Italy, and Austria) and the Ukraine (Kyiv, Donezk) in the area of applied mathematics with emphasis on medical and life science applications.

The goal is joint research in six research tasks concerning the study of mathematical methods for Magnetic Particle Imaging; entropy-like measures and quantification of system complexity; coarse-grain modelling for (bio)polymers; diagnostic tools for cardiac surgery; regularization methods for causality detection; meta-learning approach to Nocturnal Hypoglycemia prediction. Each such task will incorporate 24 months of research secondments (18 to the EU, 6 to UA).

Four project events (one per year), each including a scientific workshop, a training school and public outreach activities, are planned to be held in the Ukraine involving...
a total of 27 secondment months.

Senior scientists from Ukraine will have 15 secondment months targeted – apart from scientific and management work - at discussing issues how their institutions should develop in a restructuring of the Ukrainian research landscape.

**Field of science**

/medical and health sciences/clinical medicine/surgery
/natural sciences/chemical sciences/polymer science
/natural sciences/mathematics

**Programme(s)**

**Topic(s)**

**Call for proposal**

H2020-MSCA-RISE-2014

**Funding Scheme**

MSCA-RISE - Marie Skłodowska-Curie Research and Innovation Staff Exchange (RISE)

**Coordinator**

**UNIVERSITAET zu LUEBECK**

<table>
<thead>
<tr>
<th>Address</th>
<th>Activity type</th>
<th>EU contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratzeburger Allee 160</td>
<td>Higher or Secondary</td>
<td>€ 265 500</td>
</tr>
<tr>
<td>23562 Lubeck</td>
<td>Education Establishments</td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Website**

**Contact the organisation**

**Participants (2)**

**POLITECNICO DI MILANO**

<table>
<thead>
<tr>
<th>Address</th>
<th>Country</th>
<th>EU contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Italy</td>
<td></td>
</tr>
</tbody>
</table>

2 of 4
Partners (3)

OESTERREICHISCHE AKADEMIE DER WISSENSCHAFTEN
Austria
EU contribution
€ 283 500
Address
Dr. Ignaz Seipel-platz 2
1010 Wien
Activity type
Research Organisations
Website
Contact the organisation

INSTITUTE OF MATHEMATICS OF THE NATIONAL ACADEMY OF SCIENCES OF UKRAINE
Ukraine
Address
Bul. Tereshchenkivska 3
01601 Kyiv
Activity type
Research Organisations
Website
Contact the organisation

INSTITUTE OF APPLIED MATHEMATICS AND MECHANICS OF THE NATIONAL ACADEMY OF SCIENCE OF UKRAINE - IAMM NASU
Ukraine
Address
Roza Luxemburg St 74
83114 Donetsk
Activity type
Research Organisations
Website
Contact the organisation

NATIONAL TECHNICAL UNIVERSITY OF UKRAINE IGOR SIKORSKY KYIV POLYTECHNIC INSTITUTE
Ukraine
Address
Prospect Peremohy 37
03056 Kyiv

Activity type
Higher or Secondary
Education Establishments

Website

Contact the organisation

Last update: 24 January 2020
Record number: 194356

Permalink: https://cordis.europa.eu/project/id/645672

© European Union, 2020