Purpose of funding:

Computers and Geosciences Research Scholarships

Research projects should lie within the Aims & Scope of *Computers & Geosciences*, as outlined on the [journal’s webpage](http://www.journals.elsevier.com/computers-and-geosciences/). The awarded funds may be used either to support the applicant’s project in their home institution or to undertake a period of research at a different university or commercial/industry laboratory.

Mathematical Geosciences Student Awards

Research projects should lie within the Aims & Scope of *Mathematical Geosciences*, as outlined on the journal’s webpage [http://cosmo-mg.mcgill.ca/](http://cosmo-mg.mcgill.ca/). The *Mathematical Geosciences Student Awards* are intended to encourage graduate students and post-doctoral researchers working in the field of mathematical methods in the geosciences. Provide the name of the institution where the work will be undertaken.

Natural Resources Research Student Awards

Research projects should lie within the Aims & Scope of the IAMG-sponsored journal *NRR*, as outlined on the journal’s webpage [http://www.springer.com/earth+sciences+and+geography/geology/journal/11053](http://www.springer.com/earth+sciences+and+geography/geology/journal/11053).

The *NRR Student Awards* are intended to encourage graduate students and post-docs working on quantitative approaches in the fields of exploration, assessment, extraction and utilization of a wide variety of natural resources. Provide the name of the institution where the work will be undertaken.

Conference travel will not be funded as part of these grants. If the applicant wishes to apply for conference travel support, they are directed to: [https://iamg.org/guidelines/curriculum-quality-guidelines/student-travel-grant-applications/](https://iamg.org/guidelines/curriculum-quality-guidelines/student-travel-grant-applications/)
Examples of budgets for IAMG Student Research Grant applications (sourced from past applications):

The budget provided in the application needs to cover the funds requested, not the budget for the overall study program

**Example 1:** This PhD candidate requested support for a 3 month stay at the Colorado school of Mines in the US to carry out specialized research relevant to their PhD project:

- Return flights from Leeds to Colorado – approx. £800 (provide quotes)
- Travel to and from airport in the UK and Colorado - £50 x 2 (£100) (provide quotes)
- Accommodation and subsistence in Colorado - £500 per month (£1500) (receipts need to be provided after the stay)

Total Funding requested: £2500

**Example 2:** This PhD candidate is undertaking a sampling campaign to analyse Cd content in soils

- Sample analysis: $2000 (here a a quote for cost per sample should be supplied)
- Software cost: $100 (provide information on the software to be purchased and a quote)
- Labor cost: $100 (provide information on the type of labor and number of hours)
- Travel: $200 (provide reason for travel and basis for estimate)

Total Funding requested: $2500

**Example 3:** This candidate requests funding for access to dedicated HPC nodes to carry out analysis of large seismic data. The request to IAMG is for partial funding.

<table>
<thead>
<tr>
<th>Category</th>
<th>Total Amount Budgeted</th>
<th>Amount Requested from IAMG</th>
</tr>
</thead>
<tbody>
<tr>
<td>HPC data storage</td>
<td>$1656</td>
<td>$0</td>
</tr>
<tr>
<td>Dedicated HPC nodes</td>
<td>$7400</td>
<td>$2400</td>
</tr>
<tr>
<td>Seismic and Well Data Files</td>
<td>$480</td>
<td>$0</td>
</tr>
</tbody>
</table>

Both CPU and GPU nodes are used to build the machine-learning model and for reinforcement learning. One-year unlimited use of 24GB NVIDIA® A10 GPU Computing Accelerator costs $2400 and the CPU computing nodescost $5000 for 92GB on the WVU HPC cluster, for a total of $7400. (a quote should be provided)

Total Funding requested: $2400

**Example 4:** This postdoctoral candidate proposes to use deep Learning for Accurate Prediction of Physical Properties of Digital Rocks and requires images for experimentation

- CT scanning two times: $1000 (a quote should be provided)
- Scanning electron microscopy experiments: $500 (a quote should be provided)
- Porosity and permeability measurements: $200 (a quote should be provided)
- Mercury injection capillary pressure and gas (i.e. N2 and CO2) adsorption experiments: $800 (a quote should be provided)
Total Funding requested: $2500