



LinkSCEEM-2

Training Objectives and Opportunities

Christos Nicolaou
CaSToRC/Cyl

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LinkSCEEM Objectives

- **Vision:**

- Develop a High Performance Computing (HPC) eco-system in the Eastern Mediterranean region by integrating regional compute, data and visualization resources and engaging regional user communities.

- **Implementation strategy:**

- Create a Virtual Computational Scientist Community in the Eastern Mediterranean
- Implement training programs, and an active user networking process to approach research communities and enable scientists in the region to utilize HPC

LinkSCEEM-2 Work Packages

- **WP2 – Networking of User Communities**
 - Identify and approach promising Eastern Mediterranean user communities
 - Identify and prioritize scientific needs by regional user communities
- **WP4 – Training**
 - Develop a tiered HPC training program to support new and existing users from the Eastern Mediterranean region
 - Provide an online training portal

Training and Networking Activities - General

■ General User Meetings/Basic Training

- Four 1-day user meetings per year
 - Organized in countries in the Eastern Mediterranean region
 - Include training courses and tutorials
- One 3-day user meeting per year
 - Includes 2 days of general, cross-disciplinary training for 70 users
 - Location alternating between NARSS, Bib. Alex. and CaSToRC/Cyl
- Training topics will include
 - Parallel programming models and tools
 - Introduction to visualization techniques
 - Special sessions for using LinkSCEEM-2 e-Infrastructure resources

Training and Networking Activities - General

■ Advanced Training

- One advanced 3-day cross-disciplinary workshop per year
 - Offering advanced training courses to circa 50 participants
 - First one combined with the PRACE Winter 2011 school in Cyprus
- Training topics will include
 - Emerging HPC technologies and tools
 - Programming techniques for GPUs (Graphical Processing Units)
 - Multi-core programming for homogeneous and heterogeneous architectures

Training and Networking Activities - Thematic

- **LinkSCEEM-2 Research Themes:**
 - Climate Modelling, Cultural Heritage, Synchrotron Radiation
- **Basic Training**
 - Co-organized with User Meetings
 - Include training/tutorials in Climate Modelling applications, Cultural Heritage data acquisition and visualization and Synchrotron data analysis applications
- **Advanced Training**
 - One 3-day thematic workshop per year per theme
 - Include 2-days of advanced training in theme specific applications

Online Networking and Training Tools

- **Development of online tools to facilitate networking of user community, promote collaborations and enable training**
 - Online training portal
 - Cyber-platform providing an online user forum
 - Online knowledge base of computational science researchers/projects
- **Monitoring evolving trends and emerging users needs to adapt training programs through:**
 - Online user networking forum
 - Targeted user surveys (Please respond to the current User survey!)
- **Creating a Virtual School for Computational Science**
 - Long-term goal

Networking with other EU projects

- **Coordination of LinkSCEEM-2 activities with activities of other European projects sharing common goals**
 - Establishment of collaborative links
 - Participation in joint events
 - Co-organization of user meetings.
 - Joint 1-day sessions in community events per year per theme

LinkSCEEM-2 Consultancy System

- **Offer expert advice to novice users with respect to:**
 - Suitability of HPC to specific problem applications of interest
 - Assistance in identifying and exploiting the best platform and/or methodology for an application.
- **The system will draw upon expertise available in all LinkSCEEM-2 consortium partners**
- **Provide guidance to interested users during their early transition period to HPC methodology**

Upcoming Events

- **1-day user meeting**
 - Organized in Jordan in March 2011 (tentative)
- **3-day user meeting**
 - Including 2 days of general, cross-disciplinary training
 - In Egypt, hosted by NARSS in May 2011 (tentative)
- **1-day user meeting**
 - Organized in Lebanon in May 2011 (tentative)

Thank you

For updated information on LinkSCEEM events and training opportunities please check:

www.linksceem.eu