



<http://www.compadre.org/portal/>

ComPADRE: Pathway to Physics and Astronomy Education

Ed level: Undergraduate, High School, Public Disciplines: Physics & Astronomy

The [ComPADRE](#) Pathway supports teachers and learners by providing, through the Web, the content and services needed to enhance physics and astronomy education. Community-focused collections serve specific groups, such as teachers of introductory courses at the high school or college levels, undergraduate physics and astronomy majors, researchers in physics education, teachers and students in upper-level courses, and life-long learners. These collections, built by and for the communities, provide organized links to high-quality learning resources available on the Web and host resources that would not otherwise have a reliable Web presence. Start date: October 1, 2005.

Project Goals: 1) Support audiences through content, communication, sharing, and professional development; 2) Provide services to content developers by organizing, reviewing, disseminating, and sustaining resources; 3) Collaborate with NSDL and other libraries and service providers; 4) promote usage of NSDL and its services by physics and astronomy communities

People: University of Oklahoma: Bruce Mason – PI | AAPT: Lyle Barbato, Technical Lead
Partners: American Association of Physics Teachers (AAPT), American Astronomical Society (AAS), the American Institute of Physics/Society for Physics Students (AIP/SPS) and the American Physical Society (APS)

Collection size and collection development: Currently there are 8 collections comprising approximately 2,000 resources/learning objects. All items are reviewed by editors before going live. One collection includes a peer review system: expert reviews solicited and controlled by collection editors, with indicator as *reviewed resource* and weighted in search results. Existing collections: Astronomy Center.org; The Nucleus, PER-CENTRAL, Physical Sciences Resource Center; The Physics Front; Physics-to-Go; The Quantum Exchange, PTEC (under final development). Multiple future resource collections planned, particularly for upper division physics and astronomy classes.

Web portal: Newly released interface (July 2006) providing audience-oriented access to resources and services: K-12 Teachers, College Faculty, Students, Educational Researchers, and lifelong learners Interested in Physics. Site uses color scheme as a navigation aid, by user group/audience.

Search and browse: Search or browse by subject, author, URL, resource type, description; advanced search. Federated search with other libraries, including the NSDL NDR.

Special features: Registration system; personalization services: Filing Cabinet (folder structure); discussion forums; user profiles and preferences; relations and annotations provided with records; comment system; resource submission system; highlight/feature system for each individual collection; Community News

Community sign-on: Shibboleth software to be tested.

Cataloging/metadata generation/NSDL MR: Own cataloging system to handle multi-collection issues. All item level metadata harvested into the NSDL MR. Using NDR REST interface, and interested in iVia.

Web 2.0 technologies such as blogging, tagging/bookmarking systems (e.g. del.icio.us); RSS feeds; gaming technologies: – bookmarking, interactive communications mechanisms, RSS.

Evaluation activities: Usage logs generated for the ComPADRE network. Omniture implemented. User survey tool available. Task-based usability testing a continuing process. Participation in August concurrent evaluation workshop.

Outreach activities: Pathways and Annual Meeting participation. Pathways workshop projected for Fall 2006 or early 2007. Presentations and workshops at disciplinary meetings.

Privacy policy: Policies clearly accessible from portal entry, including Privacy, Terms, and FAQ.

Unique assets / synergies: Professional society sponsorship, strong partnerships and affiliations dedicated to the health and growth of their disciplines. Mature and sophisticated digital library. Collaboration with SERC and MERLOT. Proposed collaboration with Math Gateway. Dissemination channel for NSF-funded curriculum projects.