

**Strategic University Research Partnership Proposal for FY2011**  
**Due Date: October 1, 2010, by 4 PM PDT**

<b>1. Title of Proposal</b>	
<b>2. JPL Principal Investigator</b> Name – Section	<b>3. Co-Investigator(s)</b> (University and JPL Co-Is) Name – Affiliation – Email
<b>4. Total Budget Request for FY11</b> New Proposal [ ]      Successor Proposal [ ] Budget Request:	
<b>5. Student Participants</b> Name – Affiliation – academic level – Email	
<b>6. Topic Area</b> — Place a “1” next to your primary area and a “2” next to your secondary (optional) area. Tip: Delete unused topical areas to recoup space.	
<b>1. Next Generation Leaders and Innovators</b> <input type="checkbox"/> Education and training <input type="checkbox"/> Student career path development <b>2. Solar System Science</b> <input type="checkbox"/> Planetary Atmospheres and Geology <input type="checkbox"/> Solar System characteristics and origin of life <input type="checkbox"/> Small solar systems bodies <input type="checkbox"/> Lunar science <b>Earth Science</b> <input type="checkbox"/> Atmospheric composition and dynamics <input type="checkbox"/> Land and solid earth processes, water and carbon cycles <input type="checkbox"/> Ocean and ice <input type="checkbox"/> Earth analogs to planets <b>Global Change and Energy</b> <input type="checkbox"/> Climate Science <input type="checkbox"/> Energy production, storage, and integration <b>Astronomy and Fundamental Physics</b> <input type="checkbox"/> Origin, evolution, and structure of the universe <input type="checkbox"/> Gravitational astrophysics and fundamental physics <input type="checkbox"/> Extra-solar planets and star and planetary formation <input type="checkbox"/> Solar and Space Physics <b>Large Aperture Systems</b> <input type="checkbox"/> Lightweight Apertures <input type="checkbox"/> Lightweight precision controlled structures <input type="checkbox"/> Integrated low temperature thermal control <input type="checkbox"/> Advanced metrology <input type="checkbox"/> Wavefront Sensing and Control <input type="checkbox"/> Precision pointing <b>Detector and Instrument Systems</b> <input type="checkbox"/> Detector and focal plane systems <input type="checkbox"/> Active remote sensing	<b>In Situ Planetary Exploration Systems</b> <input type="checkbox"/> EDL/precision landing and hazard avoidance <input type="checkbox"/> Atmospheric, surface and subsurface mobility <input type="checkbox"/> Sample acquisition and handling <input type="checkbox"/> Autonomous orbiting sample retrieval, capture and return <input type="checkbox"/> Planetary protection <b>Survivable Systems for Extreme Environments</b> <input type="checkbox"/> Survival in high-radiation environments <input type="checkbox"/> Survival in particulate environments <input type="checkbox"/> Electronics and mechanical systems for extreme temperatures and pressure <input type="checkbox"/> Reliability systems for extended lifetimes <input type="checkbox"/> Space radiation modeling <b>Deep Space Navigation</b> <input type="checkbox"/> Mission Design and Navigation Methods <input type="checkbox"/> Precision Tracking and Guidance <input type="checkbox"/> On-Board Autonomous Navigation <b>Precision Formation Flying</b> <input type="checkbox"/> Distributed spacecraft architecture <input type="checkbox"/> Wireless Data Transfer <input type="checkbox"/> Formation sensing and control <b>Deep Space Communications</b> <input type="checkbox"/> High-rate communication <input type="checkbox"/> Optical communication <input type="checkbox"/> Autonomous and cognitive radios <input type="checkbox"/> Flight transponders <input type="checkbox"/> DSN arraying <b>Mission System Software and Avionics</b> <input type="checkbox"/> Spaceborne Computing <input type="checkbox"/> Mission system software <input type="checkbox"/> Autonomous Operations <input type="checkbox"/> Software Reliability

<p><b>Detector and Instrument Systems (continued)</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Passive remote sensing</li> <li><input type="checkbox"/> In-situ Sensing</li> <li><input type="checkbox"/> Detector/Instrument Cooling</li> </ul> <p><b>Advanced Propulsion and Power</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Advanced Electric propulsion</li> <li><input type="checkbox"/> Advanced Chemical propulsion</li> <li><input type="checkbox"/> Precision micro/nano propulsion</li> <li><input type="checkbox"/> Power sources for deep space missions</li> <li><input type="checkbox"/> Energy sources for deep space missions</li> </ul>	<p><b>Lifecycle Integrated Modeling and Simulation</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Trade space exploration</li> <li><input type="checkbox"/> Coupled/ Integrated Physics-Based Modeling</li> <li><input type="checkbox"/> Model Validation</li> <li><input type="checkbox"/> Model Integration</li> </ul> <p><b>Other</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Other</li> </ul>
<p><b>7. Objectives—</b> State clearly and concisely the objectives of your work and the expected deliverables.</p>	
<p><b>8. Technical Approach—</b> Describe your plan to achieve your objectives. Provide specific tasks, milestones, and responsibilities.</p>	
<p><b>9. Successor Proposals Only—</b> Describe the accomplishments of the predecessor award.</p>	
<p><b>10. Innovative Features—</b> Describe the new and original features of the proposed work.</p>	
<p><b>11. Team Strengths—</b> Describe the strengths each member of the team brings to the proposed effort.</p>	
<p><b>12. Exchange of personnel—</b> Describe any plans to have work performed at JPL by university personnel or at the university by JPL personnel. Please indicate if a student summer internship will be requested if proposal is awarded and how that internship will forward the proposed effort.</p>	
<p><b>13. Significance and Impact of Results on JPL Missions and Programs—</b>Indicate specific missions/programs or types of missions.</p>	

**14. Plans for Follow-on Funding**— Provide a realistic assessment of future funding potential. Discuss how this proposal may enhance the probability of such funding.

**15. JPL Principal Investigator Signature**

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**16. JPL PI Division Manager (or designee) Signature**

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**17. University Co-Investigator Signature**

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**18. University Representative with Signature Authority, if required by university** (signature may also be provided instead on a letter attached with university budget backup)

Name: \_\_\_\_\_ Signature: \_\_\_\_\_

**19. Figures, Graphics, Tables, etc.**  
*(Please do not use "text-wrapping" when incorporating.)*

## 20. SURP Budget Sheet

Category	Dollars
<b>DIRECT COST</b>	
1. <b>Salaries</b> — <i>(Itemize) Only “itemize” the person names or job classifications and the number of hours for each. Show one total \$ salary figure for labor. Itemize names and hours (or FTE) here</i>	\$
2. <b>Labor Fringe</b> — <i>Employee Benefits</i>	\$
3. <b>Cat A Labor</b> — <i>(Itemize) Only “itemize” the person names or job classifications and the number of hours for each. Show one total \$ figure for labor. Itemize names &amp; hours here</i>	\$
4. <b>Procurements–PO (Equipment, Materials and Supplies)</b> <i>(Itemize) Itemize here</i>	\$
5. <b>Procurement–RSA (or PS) for University Subcontract(s)</b> <i>(Important! See notes #1 and #2 below) Itemize and indicate whether the subcontract will be a RSA or PS type.</i>	\$
6. <b>Procurements– PS</b> <i>(Itemize) Itemize other (non-university) subcontracts</i>	\$
7. <b>Services</b> — <i>(Itemize) Include all in-house services at JPL Itemize here</i>	\$
8. <b>Domestic Travel</b> — <i>Itemize where and why</i>	\$
9. <b>Other</b> — <i>(Itemize) (Chargebacks, etc.)</i>	\$
10. <b>Total Direct Costs</b> <i>(total of dollars 1 through 8)</i>	\$
<b>ALLOCATED DIRECT COSTS (ADC)</b>	
11. <b>Total Allocated Direct Costs (ADC)</b> <i>ADC rates apply to SURP proposals, but not MPS. See your section administrator for help applying the current ADC rates for the various categories of direct costs above.</i>	\$
12. <b>TOTAL BUDGET REQUEST</b> <i>(See Note #3 below.) Sum of Item #9 and #10</i>	\$

**Note #1:** You must attach a budget breakdown from each university partner. There is no page limit and the format is the university’s choice. The budget breakdown should be adequate for reviewers to understand labor, procurements, subcontracts, services, travel, and university overhead.

**Note #2:** Use a “RSA” type of subcontract to send funds to your university partner, except for the following circumstances. If your proposal involves hardware or software deliveries or if government furnished property will be sent to the university, then a RSA subcontract will not be allowed. Under these circumstances, use a “PS” type of subcontract. The ADC rates for these two types of subcontracts are significantly different and it is important to make the distinction in your planning stages.

**Note #3:** Consider using the new institutional online Price Estimate Generator (PEG) for your budget estimation. Type “PEG” in your browser and follow instructions for requesting access.

**21. Budget Details for University Partner(s)**

(Replace this page with your collaborator's budget detail. There is no page limit and the format may be of their choosing.)