



PARTNERSHIP FOR INTEGRATION OF COMPUTATION INTO UNDERGRADUATE PHYSICS

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Partnership for the Integration of Computation into Undergraduate Physics

Lower Barriers

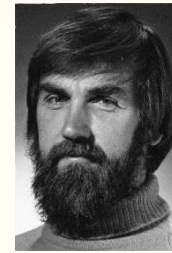
To Integrating Computational Activities
Into Undergraduate Courses

The Birth of PICUP

Founders:



Norman Chonacky,
Applied Physics,
Yale U.,
Former Editor-in-Chief
*Computing in Science
and Engineering*



David Winch,
Physics,
Kalamazoo College
1935-2013

* Survey Report:

Robert G. Fuller, [*Numerical Computations in US Undergraduate Physics Courses*](#),
Computing in Science and Engineering vol. 8, 2006, pp. 16-21.

PICUP set out to address the conundrum:

Why, if so many physicists concede the importance of computation, is there so little presence of computation in undergraduate physics courses?

Through NSF funding...

1. **2016 PICUP/AIP National Survey Project**-survey of current computational use in the undergraduate physics curriculum in a national sample of colleges and universities offering the physics baccalaureate. **The results are in! Stay tuned...**
2. **Local Communities Project**-a regional AAPT section-centered faculty development model for fostering the integration of computation into the undergraduate physics curriculum
3. **National Scale Faculty Development and Community Building Project**-large scale faculty development activities coupled with an ambitious effort to build
 - * a sustainable community of like-minded physics faculty across the country, and
 - * a repository of useful and adaptable computational physics education resources

PI's:



Danny Caballero
Michigan State U.



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Yale U.



Larry Engelhardt
Francis Marion U.



Bob Hilborn
AAPT



Marie Lopez del Puerto
U. St. Thomas



K. Roos
Bradley U.



Practical Operation of the PICUP Organization

- Community Building
- Faculty Support
 - Workshops / Synchronous Meetings
 - Faculty Opportunities/Rewards
 - Educational Materials Development
 - Repository of **Adaptable** Resources
 - Computing Environment/Language **Agnostic**

Greater Chicagoland Workshop Hosts and Coordinators



Joe Kozminski
Lewis U.



Ryan Hooper
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Larry Engelhardt
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