

# Faculty Focus 1

Toby Dittrich

Physics Sylvania

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# Juneau Icefield research Program (JIRP)

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# JIRP 1970

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# Glacial Waves

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# Cryoconites





# Juneau Icefield

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# Mt. Service

Poet Robert W. Service





# Success!

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# Summit Boxes



# Mt. London

Author Jack London

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# Other Direction

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# Return in 2014

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# Dr. Ben Santer LLNL

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# Climate Change Education

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- ❧ **Community Education Course** –[www.pcc.edu/GCC](http://www.pcc.edu/GCC)
  - ❧ Dr. Phil Mote , Oregon CC Institute ,OSU
  - ❧ Dr. Dan Schrag, Harvard World Ecology Center
  - ❧ Dr. Be Santer, LLNL
  - ❧ NCAR,NOAA, UW, WSU and more
- ❧ **Educational TV Program** with Secretary Bill Bradbury
- ❧ **Small Video Segments** for Course Use



# Oregon NASA Space Grant

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The Face of  
NASA in Oregon

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[www.OregonSTEM.org](http://www.OregonSTEM.org)

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✧ <http://spacegrant.org/regonstate.edu>

✧ Bringing STEM  
Education to Oregon  
for 20 years!

✧ Portland STEM Center

✧ PSU

✧ South Metro STEM Center

✧ Evergreen Space Museum

# PCC Online Physics

## Create Courses

- ☞ PHY 121,122,123 Astronomy
- ☞ Physics 201-3 and 211-13  
Require Hands on Lab
- ☞ GOAL: Make PCC Physics the  
premier Physics Online offering  
in the world!

## Little Blue Box with Wheels





# The Physics Teacher

Toby Dittrich, Leonid Minkin, Alexander Shapovalov

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- ∞ Measurement of Heat Capacity By Cooling
- ∞ Parametric Oscillations
- ∞ Drop Tower Physics
- ∞ Is Angular Displacement a Vector Quantity?

# Patents

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- ✧ Instant Note Capture (2 patents , 28 pending)
- ✧ Virtual Oral Recitation/Examination (1patent, 1pending)
- ✧ VORE Technology: An automated method of assessment of oral discourses



# Sabbatical and IES Grant

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- ❧ World Class Research Team
- ❧ Principal Investigator: **Dr. Darlene Russ – Eft**
  - ❧ Chair College of Education , Oregon State University
  - ❧ Two PhD graduate Rresearch Assistants
- ❧ Co PI: **Dr. Greg Sampson-Gruener**
- ❧ Consultant: **Dr. Kenneth Winograd, Dr. Kathy Austin**
- ❧ Advisors: **Dr. Martin Nystrand**
- ❧ Advisor : **Dr. Art Graesser**

# Grant Goals

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- ✧ Build Software Assessment System
- ✧ Test reading comprehension in largest school district in California
- ✧ Apply for Goal Three Grant – Efficacy and Replication
- ✧ Test VORE Technology in 400-600 schools nationwide
  - ✧ After five years –RETIREMENT (maybe)



# PCCFFAP

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- ❧ ViP for Full Time Membership
- ❧ MY BHAG
  - ❧ Increase FT/PT Faculty ratio in Math
  - ❧ Provide focused Professional Development in Math
- ❧ My continuing goals
  - ❧ INCREASE FT/PT Ratio
  - ❧ Increase PT Wages
  - ❧ Eliminate Catch 22 in Course Development Grants

# My Chain of Command

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- ☞ Dr. **Patty** Mazouz , Chair SYL Physical Sciences
- ☞ Dr. **Dieterich** Steinmetz, Dean of Science/Engineering
- ☞ Dean **Jeff** Triplett
- ☞ Dr. **Chris** Chairsell
- ☞ President **Linda** Gerber
- ☞ District President **Jeremy** Brown
- ☞ **A DREAM TEAM LINE UP OF WORLD CLASS LEADERS – IT COULDN'T BE ANY BETTER!**



# Thank You

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❧ Please make the Faculty Focus a permanent activity in the agenda of the PCC Board....

❧ PCC Faculty and Academic Professionals deserve to heard!