

## TENURE-TRACK FACULTY POSITIONS IN EXPERIMENTAL AND THEORETICAL PHYSICS

The Department of Physics invites applications for tenure-track faculty positions at the Assistant Professor level. Ranks at Associate Professor or above will also be considered for candidates with exceptional record of research excellence and academic leadership. Applicants must possess a PhD degree in physics or related fields and have evidence of strong research productivity.

**We seek experimental candidates in quantum matter and quantum information, including quantum and low-dimensional materials, materials with strong electronic correlations, cold atoms, quantum optics, and quantum enabled technologies. We also seek theoretical candidates in condensed matter theory, statistical physics, neural networks or data analytics.**

Appointees are expected to assume teaching responsibilities for undergraduate and graduate courses, and to conduct vigorous research programs. Further information about the Department is available at <http://physics.ust.hk>.

Starting salary will be commensurate with qualifications and experience. Fringe benefits including medical and dental benefits, annual leave and housing will be provided where applicable. Initial appointment will normally be on a three-year contract. A gratuity will be payable upon successful completion of contract.

### Application Procedure

Applicants should submit their application including CV, cover letter, complete publication list, research statement, teaching statement, and three reference letters, via AcademicJobsOnline.Org at (<https://academicjobsonline.org/ajo/jobs/16290>).

Please quote reference number "PHYS2509" in your application materials.

Screening of applications begins immediately, and will continue until the positions are filled.

## READERS' FORUM

- Did you find the material taught in Physics 000 by Professor X useful in subsequent courses?
- Do you ever go back to your notes or textbook from that class to review information because it is important in another course or in your current job?
- Did the solution to a problem or exercise in Professor X's course turn out to be applicable in your current position?
- Have you applied a technique learned in Professor X's class to solve a different problem you've subsequently encountered?
- In hindsight, would you recommend that a student take Physics 000 with Professor X or with some other instructor?

Students would be unable to answer those questions in the last week of class, but years later they could make a much better and more relevant assessment. In addition, such evaluations are not needed in the short term. By the time a faculty member is coming up for tenure in their seventh year, many students will have taken their courses and graduated.

I made a similar suggestion when I was on my college's sabbatical committee. A faculty member is generally allowed to take a sabbatical after receiving tenure at seven years of service. When eligible for the next sabbatical, that faculty member should be asked what benefits from the last one were realized during the intervening years. That suggestion was received with the same lack of enthusiasm as my suggestion for evaluations of teaching effectiveness that used a longer-term student perspective.

Although a student will generally know if a professor is unprepared for class or is irresponsible in grading and returning assignments, that kind of information would probably be brought to a department chair's attention during the semester. A common saying best

summarizes what is more important for faculty evaluations: "You don't get what you expect, you get what you inspect."<sup>1</sup>

If instructors know that their performance will be judged by the impact their course has on students' futures, the debate will change from a survey that assesses classroom experience to a focus on the true purpose of that experience.

### Reference

1. See, for example, K. R. Smith, *Energy Sustain. Environ.* **11**(2), 3 (2007).

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## Units, for good measure

In his editorial in the March 2020 issue of PHYSICS TODAY (page 8), Charles Day commented that Lord Rayleigh cited cubic millimeters for the volume of pipes but inches for their length. In the US, we measure gasoline consumption in miles per gallon, whereas in Europe, it is measured in liters per 100 kilometers, the inverse. The European metric unit has dimensions of area, but the US unit is 1/area. What is the meaning of that area? My hybrid car has a consumption of about 40 miles per gallon. The corresponding area—much easier in metric—is about 0.6 mm<sup>2</sup>. That is the cross-sectional area of a gasoline-filled pipe that, if laid along the road, will keep my car going if I scoop up the gas. It may be 2 mm<sup>2</sup> for a gas-guzzler. I propose measuring fuel consumption in square millimeters.

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## CONTACT PHYSICS TODAY

Letters and commentary are encouraged and should be sent by email to [ptletters@aip.org](mailto:ptletters@aip.org) (using your surname as the Subject line), or by standard mail to Letters, PHYSICS TODAY, American Center for Physics, One Physics Ellipse, College Park, MD 20740-3842. Please include your name, work affiliation, mailing address, email address, and daytime phone number on your letter and attachments. You can also contact us online at <https://contact.physicstoday.org>. We reserve the right to edit submissions.

## Corrections

**March 2020, page 45**—The equation should read as follows:

$$\underbrace{\frac{1}{v_0} \frac{\partial \eta}{\partial t} + \frac{\partial \eta}{\partial x}}_{\text{Transport}} + \underbrace{\frac{h^2}{6} \frac{\partial^3 \eta}{\partial x^3}}_{\text{Dispersion}} + \underbrace{\frac{3}{2h} \eta \frac{\partial \eta}{\partial x}}_{\text{Interaction with seabed}} = 0,$$

**March 2020, page 46**—The  $L_{ij}^{(k)}$  and  $L_{xy}^{(z)}$  terms should have been  $\mathcal{L}_{ij}^{(k)}$  and  $\mathcal{L}_{xy}^{(z)}$ , respectively.