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COLLINS REPLIES: I apologize for having underplayed the pioneering role of Dieter Pohl and his coworkers at IBM Zurich in the development of near-field scanning optical microscopy in my news story on single-molecule imaging using that technique. The published sentence about "unprecedented optical resolutions" was an unfortunate revision of a clearer earlier draft that referred to "the unprecedented sensitivity and optical resolution necessary for single-molecule detection." In describing "the first scanners of this type" as using glass pipettes or quartz rods and having been constructed by "various groups," my intent was to avoid entering into a detailed comparison of the contributions of various researchers in the field in the early-to-mid-1980s, there being insufficient space in a Search and Discovery item on recent research to do justice to this contentious topic. However, I erred in not naming those researchers, who include Pohl and his coworkers at IBM, and also Aaron Lewis, Michael Isaacson, Alec Harootunian, Eric Betzig and coworkers, all then at Cornell. Reference 8 of my story was to a 1992 review article[1] that has an extensive set of references to original research papers and earlier review articles, including a review by Pohl.[2]

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Fargo Firing: A Final Fact

My colleagues on the North Dakota State University physics faculty omit from their letter (December, page 13) the fact that in August a three-faculty-member university senate appeals committee (which included the prestigious former four-term mayor of Fargo) ruled my firing "unwarranted" as it lacks "specific allegations" of "inadequate teaching, research, or service."

I would invite my colleagues who signed the letter to recognize that a university must be an environment where more than one point of view is allowed to flourish. They should not confuse everyday disagreements with "lack of collegiality" or "disruptive conduct." A professor should not be fired for simply disagreeing about academic issues or about departmental policies and practices he believes thwart the university mission.

MANUEL DE LLANO
North Dakota State University
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Brit Booze Bags Higgs Wits; US Dough's No Go

In the February 1994 issue of PHYSICS TODAY (page 95) I read that William Waldegrave, "Britain's close equivalent to a science minister," got five understandable explanations of the Higgs particle in response to his offer of a bottle of champagne. The American Association of Physics Teachers, through its Harry Epstein Prize contest, created in memory of my father, has been offering $500 for such an explanation for two years, without an answer. Do the physics teachers need wider publicity or a switch from money to wine?

LEWIS EPSTEIN
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Atom–Plane Exp't Lived Up to Its (r^{-3}) Potential

Barbara Goss Levi (April 1993, page 18) described the pleasing and beautiful results of a group at Yale validating the r^{-4} variation of the relativistic Casimir–Polder energy of interaction between an atom and a planar substrate.[1] Levi's piece also went on to say that our 1975 work[2] at the then-National Bureau of Standards "did not have sufficient precision to distinguish clearly between a retarded and an ordinary [r^{-3}] van der Waals potential."

Actually it's a lot happier than that. The 1975 results were not error limited as stated. Rather, it was cleanly evident from the deflection of an atomic beam that at short distances the "nonretarded" interaction between a K, Rb or Cs atom and a gold substrate goes as an inverse-cube law. This r^{-3} energy is quite distinct from the "retarded" inverse-fourth interaction delineated by the Yale group, who were observing at long distances.

What is so beautiful is that now, finally, we have a pretty good idea about *both* limiting laws. What's still puzzling is the 40% discrepancy between the coefficient we measured for the r^{-3} interaction and the best no-fudge-factor result calculated by feeding the full spectral response of atomic K and solid Au into Evgenii M. Lifshitz's generalized formulation of the Casimir–Polder result. Suggestions of a surface roughness correction[3] still need to be examined.

It is indeed satisfying that new work is being done on these basic and instructive questions.

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