

their choices? Who has given to some elite group of women the wisdom to know better than the individuals themselves what they really want? Is it not an insult to women's intelligence to assume them to be complete puppets of "cultural expectations"? Is Bell for their right to choose for against it?

Yes, Ms. Bell and company, I *do* support women's rights, but *not* the ERA. Freedom is life; love another's freedom and you love the person. It's almost 1984, but please don't appoint yourselves (or the APS) as Big Brother to the nation's women.

STEVEN C. BARROWES
Bloomington, Illinois

9/7/79

I disagree completely with the action of the APS Council in the matter of the ERA boycott. The constitution gives them no right to use my money to take a political action. They have done just that.

My first inclination is to cancel membership until the issue is past. But I agree so completely with the view of Fred Jeffers that I shall maintain my membership for a while in the hope that I may have the opportunity to vote for a council recall. If that opportunity does not arise, I can then cancel.

WILLIAM D. FOLAND
Washington and Jefferson College
Washington, Pennsylvania

9/2/79

Systems science and physics

As chairman, I would like to advise the physics community of a new technical subcommittee on "physical-systems science" within the IEEE Systems, Man, and Cybernetics Society. As its name implies, the purpose of this new subcommittee will be to communicate research on physical systems. Of course, the term "physical systems" bears much in com-

mon with the word "physics," and I should like to explain the difference.

As practiced today, "physics" is a fairly circumscribed subject with heavy emphasis on a handful of "current" subjects, such as high-energy experiments aimed at investigating the structure of matter. By contrast, "physical-systems science" includes, with equal emphasis (so far), the modeling of virtually any physical system.

Secondly, the word "modeling" is a keyword. It is well known that we have been unable to come up with any one theory that satisfactorily models the universal class of phenomena in every limit. We do not even have a unified field theory. Nonetheless, in physics one tends to believe that one has been given what is tantamount to some divine relations (such as relativity and quantum mechanics) which, taken together, do provide a complete and everlasting ultimate truth. By contrast, systems scientists take the more modest view that they have, at best, some models that are useful within prescribed and finite bounds, and that need to be continually revised and corrected as experimental techniques become more sophisticated, and data and experience expand.

In short, physical-systems science has a much broader scope and a much more modest ambition than physics. The former point is best illustrated by the proceedings of the first session on physical systems science of the Systems, Man, and Cybernetics Society (IEEE Proceedings 79CH1424-1 SMC). Because of these differences, it is to be anticipated that our new subcommittee will complement, rather than compete with, The American Physical Society.

For more information, write to the author at Algorithms, Inc., 17114 Devonshire St., Northridge, California 91324.

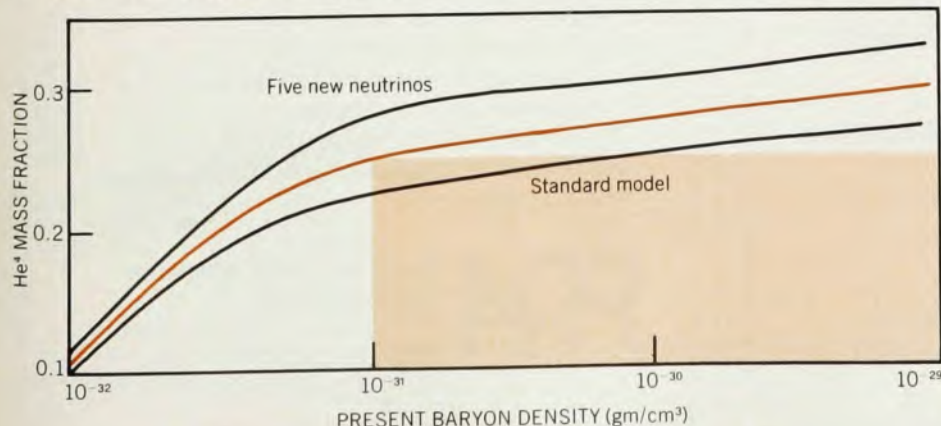
ALLEN D. ALLEN
Chairman, Physical Systems Science,
IEEE SMC Society

7/20/79

Correction

September, page 46—figure 4 of the article on cosmology and elementary-particle physics. The corrected figure appears

below. On page 48 in figure 6 the label Γ_x should refer to the curve that starts from the origins; H is proportional to T^{+2} . □



NEW COMPLETE CHARGE SENSITIVE PREAMPLIFIER



IN A MATCHBOX SIZE!

MODEL 402—for use with low noise semiconductor radiation detectors in remote locations. May be directly connected to detectors eliminating input cable noise and microphonics. Complete in the size shown, and can drive long cable lengths. Signal, output, detector bias, test pulse and power are supplied through one multipin connector. The C300 power supply is a convenient method of supplying up to four preamps.

MODEL 404—as above but noise optimized for high capacity detectors.

- Noise-3KeV (402)
- Noise slope-20eV/pf (404)
- Vacuum operation
- Repairable construction

CALL DICK ALEXANDER
(213) 390-1657

Nucleometrics, inc.

11522 West Jefferson Boulevard
Culver City, California 90230

Circle No. 47 on Reader Service Card