## NOESIS

## THE JOURNAL OF THE MEGA SOCIETY NUMBER 117 APRIL 1996

EDITOR<br>R. ROSNER

5711 Rhodes Ave
N. Hollywood CA 91607-1627
(818) 985-5230

## IN THIS ISSUE:

A SYNTHETIC APERTURE TELESCOPE BY GLENN MORRISON WHY THE STOCK MARKET IS GOING TO CRASH BY ROBERT DICK LANGDON'S REPLY TO MAXIM ON THE NORMING OF THE LAIT EINSTEIN'S PARTIAL DIFFERENTIAL EQUATION BY R. HANNON A POEM AND A TRANSLATION BY PAUL MAXIM

STANDARD REMINDERS: DUES ARE \$2 PER issue. You receive one additional issue for Each two pages of published material you submit. Back issues are $\$ 1.50$ per. Checks are payable to rosner, not Mega or NOESIS. SEND IN LOTS OF STUFF--MANY OF YOU ARE ANNOYED BY CERTAIN CONTRIBUTORS. AN EFFECTIVE WAY TO DILUTE SUCH ANNOYANCE IS TO SUBMIT much material. Your material won't necessarily soueeze out stuff that annoys you. but it may lower the ratio of annoying to nonANNOYING MATERIAL.

Dear Rick,
As a result of relentless chiding and ridicule- ok, mostly ridicule, from my computer gurumaven friends I have finally junked the floppy-XT and upgraded to a 486 with Windows. MS Works and fun toys like Mathcad and Visio. So it's goodbye Courier, hello Times Roman......and by the way, the people have spoken. my congrats on your election as editor.

The following is my design for a relatively cheap large aperture space telescope, inspired by Chris Harding's "Telescope of Considerable Aperture for the Poor". Just add NASA. On second thought, better not.

Incidentally I wonder if Chris has done any experimenting with the "centrifugal" mirror making method. I believe somebody in the 18th Century thought of the basic idea. One places a container of epoxy-like liquid on a precise-speed rotating turntable and allows it to solidify. Once it has hardened the surface should be an exact parabola. The difficulty is finding a liquid with enough dimensional stability through the hardening process to attain. and retain, a sufficiently accurate surface. Also, the surface must accept aluminizing. The container itself could be a thermally stable ceramic, made roughly parabolic, to serve as rigid support for a thin layer of liquid, hopefully leaving less room for surface error

## A Synthetic Aperture Astronomical Telescope (SAAT)

Abstract: This is a proposal for a large-aperture space telescope that should be much less costly to construct, for a given aperture, than the conventional continuous-mirror type such as the Hubble, or even a segmented parabolic mirror. The main objective of the SAAT consists of a dish-shaped array of small optically flat circular mirrors (receptors), each reflecting an incoming plane wave from the same point source (distant star) into a single common focusing lens. Each focused light signal feeds into a separate optical fiber, limiting the telescope's field of view to the receptor's angular resolution, about one second of arc for 100 mm diameter receptors The opposite fiber ends are arranged to create a "synthetic aperture" geometrically similar to the arrangement of the receptors. Light signals emerging from this aperture produce a high resolution image at the CCD detector. by constructive interference, of the light sources contained in the field of view. A telescope of this type, constructed in orbit, could be much larger than the Hubble; 10 to 100 meter aperture seems attainable with present technology. Possible applications include direct imaging of planets of stars other than the Sun, inspection of surface features of the nearer stars and of planets and asteroids in the Solar System, separation of individual stars of distant galaxies for refining estimates of the Hubble Constant, possible black holes in galactic cores, and quasars and other objects at high redshifts. Very likely, unforeseen discoveries would turn up, as has occurred historically when higher resolution instruments are introduced. Even if we could not resolve a planet's disk, we could still separate its light from that of its parent star and spectroanalyse it. An Earth-type, for example, would show oxygen absorption lines. For this reason, detection of a faint source next to a very bright

```
which Einstein defines as "independent of time". In Einsteinc
moving system where T = time, x* is indeed independent of T, which
means that T and x* have no relatzonship; thus \deltaT/\deltax* = 0. This
fact tejls us that Einstein's PDE can not be [B], but must be:
or:
O+[V/(C2-V2)]\deltaT/6t=0
                                    [B-1]
    6T=0
    T}=\mathrm{ constant
and, when T=t=0:
    T=0
                                    (1-1B)
```

which does not agree with [C], but is a possible particular solution of ( $A$ ) [see equation ( $6-1$ ), above].

CONCLUSION:
Einstein's solution to his PDE is incorrect, and all succepding steps in his 1905 derivation of his "transformations of coordinates and timps" are without meaning.

REFERENCES:
(1) Einstein, A: "On the Electrodynamics of Moving Bodies", Annalen der Physik, 17, 1905.
(2) Cohen, A, "An Elementary Treatise on Differentaal Equations", Second Edition, 1933, p269; DC Heath and Co, NY.

## TWINFANTS

We took turns in the stroller my sibling and I;
sometimes one would push it and sometimes lie.

As we swept past the guardhouse where father lay jailed,
our cxies rang exultant. our diapers trailed.

To the ends of the Earth, to the depths of the night,
our squabblings proved vain,
irrecondite,
for the more we conspired to disagree,
the stronger our consanguinity.

The hospital rich in surface light nurtures that beast's huge appetite, that big-bellied beast called "stretcher" here, horns to the front, and horns to rear.

The fodder: a man without redress, cloven and nailed by helplessness, to whom this proxy flesh was lent, the stretcher that girds all armament.

It moves through conspiring soundlessness, having drawn the man from an edifice as one withdraws, so justice be done, the knife still sticking into one.

Attacked by night: a nasty lair; the main road shrieked: like a witness there, the Milky Way with its brilliant glow streamed fast with the stretcher down below.

Parallel sluicings, death in view, all-powerless, but in lockstep too, the higher worth more than the one below: two bearers trudging a quid pro quo.

They moved in unison as they swayed; the tall night trembled, the night essayed to suck the man from his sick-ward, where high time approached, stars pearled in the air.

By that swaying, by that conjoining then, the greatest love gushed forth, just when those bearers being sensed no more, they merged like death into night's decor.

My transfer was long and short combined.
"Unconscious" was called the bearer behind.
"Of what? Of replacement?" asked the wind --
"One single direction, weakness twinned!"
As colder grew the void around, it deepened me ever more profound, and in the high night, the freezing night, all was light, but surface light.

