



Walter Thirring

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This issue of *Communications in Mathematical Physics* is dedicated to Walter Thirring on the occasion of his sixtieth birthday on April 29, 1987. By this means the editors wish to honor a man who has not only made important contributions in many diverse areas of mathematical and theoretical physics, but has also played a leading role in fostering fruitful interchanges between mathematics and physics. Among the ways in which he has done this is by the creation of an important school of mathematical physics in Vienna, by his directorship of the CERN Theory Division, and as one of the founders and first president of the International Association of Mathematical Physics. Above all, Thirring was one of the earliest, most consistent and most successful advocates of the point of view that mathematics and physics inform each other and that good mathematical physics is both good mathematics and good physics.

Some of the highlights of Thirring's work consist of the soluble field theory model which he invented (1958), and which is still the subject of active research today, one of the first versions of the  $SU(3)$  classification of hadrons (1959), dispersion relations in quantum field theory (1954, with Gell-Mann and Goldberger), and a Lorentz-invariant theory of gravitation (1959). In many-body theory, Thirring (with Hertel and Narnhofer) produced an exact theory of the thermodynamics of large masses of non-relativistic gravitating fermions (stars) and worked out its consequences (1972). In 1975 Thirring (with Lieb) following Dyson and Lenard, gave a simple proof (with realistic energy estimates) of the stability of ordinary matter under the action of Coulomb forces. Finally, his four volume "Course in Mathematical Physics" is a major, influential work that has made almost the whole field accessible to students and experts alike, and has set a level and style that will dominate the field for years to come.

All the papers in this issue have been specially written for it and the authors, editors and many other friends of Walter join me in wishing him many more years of creative scientific work and happiness.

Elliott Lieb