

GRAVITY RESEARCH FOUNDATION
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Gloucester, Mass.
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SELECTED ESSAYS FOR 1961

- Avakian, Arra S., THE NATURE OF ELECTROMAGNETIC RADIATION, MATTER, AND GRAVITY. Spinning e.m. radiation is equivalent to matter; non-spinning e.m. radiation produces photons.
- Basso, Michael J., THE ASSOCIATION OF ELEMENTARY PARTICLES WITH GRAVITATIONAL AND MAGNETIC PHENOMENA. Makes use of Blackett's magnetic moment and angular momentum.
- Blum, Edward H., and Hitchcock, Robert B. GRAVITATIONAL REFRACTION. They suggest a means of generating gravity waves and simultaneously measuring the refraction of gravity and e.m.waves.
- Bostick, Winston H., THE GRAVITATIONALLY-STABILIZED HYDROMAGNETIC MODEL OF THE ELEMENTARY PARTICLES. Shows how it is possible by means of Einstein's equations to have particles gravitationally stabilized.
- Charon, J. E., THE COUPLING BETWEEN GRAVITATIONAL AND ELECTROMAGNETIC FIELDS. A unified theory using anti-gravitons (holes). Explains celestial gravitational fields.
- Fiala, Harvey E., MEASURING THE PROPAGATION VELOCITY OF GRAVITATIONAL INTERACTION AND INDIRECTLY MEASURING GRAVITATIONAL RADIATION. Computes values of parameters for production and detection of gravity waves.
- Forward, Robert L., DESIGN FOR A GRAVITATIONAL INDUCTION FIELD GENERATOR. Possible but no values given for expected effects.
- Good, Myron L., THE K_2^0 AND THE EQUIVALENCE PRINCIPLE. Shows another verification of the equivalence principle.
- Grahm, A. L., GEOTROPISM AND GEOELECTRIC EFFECT. Makes use of an ingenious method for measuring the geoelectric effect.
- Gresky, Alan T., NEW UNDERSTANDING OF GRAVITATION VIA UNIFICATION OF NATURE'S LAWS. Valuable interrelations among fundamental units.
- Halpern, Leopold E., GRAVITATIONAL EFFECTS OF CELESTIAL BODIES ON HIGH ENERGY ELEMENTARY PARTICLE PROCESSES. Delicate but just possible experiment.
- Kaplan, Leonard M., PARITY AND GRAVITATION. Oriented atoms might indicate that gravitational forces are not invariant.

- Kevane, Clement J., ANTIGRAVITY, RELATIVITY, AND EXPANSION OF THE UNIVERSE. Gravitational plasma model has negative binding energy.
- Fosvic, Harvey, THE SYMMETRY OF THE ELECTROMAGNETIC FIELD. Four kinds of matter; $\text{div} \mathbf{E} \cdot \text{div} \mathbf{H} = 0$, antimatter, matter, cosmic rays.
- Sciama, D. W., THE POLARIZATION OF RADIATION IN GENERAL RELATIVITY. Explores ways of evading null e.m. field by geometrical theory of spin.
- Smith, Stephen B., ON THE NEUTRALIZATION OF GRAVITY BY USING A SPIN-GRAVITY TRANSFORMATION.
- Stoner, John C. Jr., NEW INDICATIONS OF THE POSSIBILITY OF CONTROLLING THE GRAVITATIONAL FIELD. Concerns liquid helium, Mach's Principle, and preferred coordinate frames.
- Tasch, Paul, A CONTROLLED EVAPORATION-CONDENSATION SYSTEM FOR THE INDIRECT CONVERSION OF GRAVITY INTO ELECTRICAL ENERGY. Plausible but probably not economical.
- Walker, E. H., A METHOD FOR THE DETECTION OF GRAVITATIONAL WAVES THAT CAN BE PRODUCED BY PRESENT TECHNIQUES. Makes use of superconductivity.
- Wilson, Lawrence A., A NEW PARAGRAVITIC DISCOVERY 'THE THERMAL DEGRADATION ELEVATOR EFFECT'. Discovered in organic compounds, (e.g. Chloro trifluoro ethane).