RESUME

NAME: Vishnu Kumar Agrawala

ADDRESS:

PHONE NO:
(412) 392-3890 (Office)

DATE OF BIRTH: September 6, 1938

PLACE OF BIRTH: Mathura (U.P.), India

CITIZENSHIP: Citizen of India

VISA STATUS: U.S. Immigrant(Permanent Resident) Visa

MARITAL STATUS: Married

NO. OF CHILDREN: One

EDUCATION:

Degree	Major	Year	Institution
Ph.D.	Math	1981	University of Pittsburgh
Ph.D.	Physics	1967	Carnegie-Mellon University
M.Sc.	Physics	1961	Banaras Hindu University, India
B.Sc.	Phys., Math., Chem.	1959	Banaras Hindu University, India
High School		1955	University Children's School, Varanasi, India

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PRESENT POSITION:

Professor, Department of Natural Sciences and Technology, Point Park University, Pittsburgh, Pennsylvania.

TEACHING EXPERIENCE:

I have been teaching undergraduate physics and mathematics courses at Point Park University since 1967. The courses taught were: General Physics I and II, College Physics I and II, Modern Physics, College Algebra, Trigonometry, Elementary Algebra, Fundamentals of Mathematics (for Liberal Arts students), Elementary statistics, College Geometry, Calculus I, II, III, Advanced Calculus I and II, Vector Analysis,
Linear Algebra I and II, Abstract Algebra.

Also have taught the following courses in computer science at University of Pittsburgh and Point Park University: Data Structures, Fortran, Quick BASIC, C++.

RESEARCH EXPERIENCE:

My early research activity was in the area of applications of group theory to particle physics. This involved some programming experience in Fortran and Algol. More recently I have obtained results in the theory of computational complexity, tensor rank, invariants of Lie algebras, graded Lie algebras.

I was one of the organizers of an NSF sponsored conference on Computational Complexity held at the University of Pittsburgh from August 21 to 25, 1978. I gave a talk at this conference and was the chairman of the August 24 session.

AFFILIATIONS:

Mathematical Association of America, Currently, I am the Point Park University representative of the Allegheny Mountain section of the Mathematics Association of America.

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PUBLICATIONS:

1. V. K. Agrawala, "Shadja-gram, Madhyam-gram, and the Contemporary Musical Scale" (in Hindi), Sangeet Monthly, 25 (9), pp. 3-8 (Sept., 1959).

2. V. K. Agrawala, "The Scientific and Historic Basis of the Indian Major Scale" (in Hindi), Sangeet Monthly, 25 (12), pp. 3-8 (Dec., 1959).

3. V. K. Agrawala and T. V. Ramakrishnan, "Neutron-Proton Interaction", Nature 196, pp. 761-762 (1962).

4. V. K. Agrawala, J. G. F. Belinfante and G. H. Renninger, "On the Cutkosky-Leon Normalization Condition", Il Nuovo Cimento, Tenth Series #### pp. 740-744 (1966). (Nucl. Sci, Abstr. 20-41951).

5. V. K. Agrawala and J. G. F. Belinfante, "Graphical Formulation of Recoupling Theory for any Compact Group", Annals of Physics (U.S.A.), 49, pp. 130-170 (1968).

6. V. K. Agrawala and J. G. F. Belinfante, "Weight Diagrams for Lie Group Representations: A Computer Implementation of Freudenthal's Algorithm in ALGOL and FORTRAN", Nordisk Tidskrift fur Informations behandlung (Sweden), BIT _9, pp. 301-314 (1969). (Comput. Revs. 12-20763).

7. V. K. Agrawala and J. G. F. Belinfante, "An Algorithm for Computing SU(n) Invariants", Nordisk Tidskrift fur Informationsbehandlung (Sweden), BIT 11, pp. 1-15 (1971). (Math. Reviews 44-2423).

8. V. K. Agrawala and C. Y. Chao, "Equalities and Inequalities for Ranks of Modules", Linear and Multilinear Algebra, ## pp. 307-315 (1978). (Math. Reviews 80g:15001).

9. V. K. Agrawala, "Wigner-Eckart Theorem for Graded Generalized Lie Algebras", Hadronic Journal, ## pp. 830-839 (1979). (Math. Reviews 80k:81166).

10. V. K. Agrawala, "Micu-Type Invariants of Simple Lie Algebras", J. Math. Phys., 11, pp. 2178-2186 (1979). (Math. Reviews 80k:22008).

11. V. K. Agrawala, "Wigner-Eckart Theorem for an Arbitrary Group or Lie Algebra", J. Math. Phys., 21, pp. 1562-1565 (1980).

12. V. K. Agrawala, "Micu-Type Invariants of Exceptional Simple Lie Algebras", J. Math. Phys., 21, pp. 1577-1578 (1980).

13. V. K. Agrawala, "Explicit Representation of Spin-l Matrices", American J. Phys., pp. 188-189 (1981).

14. V. K. Agrawala, "Invariants of Generalized Lie Algebras", Proceedings of the Second Workship in Lie-Admissible Formulations, August 4-9, 1980, Hadronic Journal _4, pp. 444-496 (1981).

15. V. K. Agrawala, "Commutativity of Products for Adjoint Operators, Hadronic Journal.

UNPUBLISHED WORK:

1. V. K. Agrawala, "A Study of Broken SU(n) Symmetry for Baryons in a Bootstrap Static Model Bethe-Salpeter Formalism", Doctoral Dissertation, Carnegie-Mellon University (1967).

2. V. K. Agrawala and J. G. Belinfante, "Diagram Techniques in Group Theory, Part II. Racah lgebra for the Special Unitary Groups SU(n)", (1968).

3. V. K. Agrawala, "Circular and Trigonometric Functions", Lecture Notes, Point Park University (1970).

4. V. K. Agrawala, "Selected Experiments in Physics, Part I, Mechanics", Point Park University (1975).

5. V. K. Agrawala, "Selected Experiments in Physics, Part II, Electro magnetism and Optics", Point Park University (1976).

6. V. K. Agrawala and C. Y. Chao, "Tensor Rank of Partially Non-Singular Algebras", Paper presented at the NSF Conference on Computational Complexity held at the University of Pittsburgh, August 21-25, (1978).

7. V. K. Agrawala, "Invariants of Lie and Generalized Lie Algebras", Doctoral Dissertation, University of Pittsburgh (1981).