

DANG DINH ANG: THE FIRST SEVENTY YEARS

NGUYEN HUU ANH*, NGUYEN XUAN SANH** AND TRAN DUC VAN***

Professor Dang Dinh Ang, President of HoChiMinh City Mathematical Society and a long time professor of Mathematics at HoChiMinh City University, will be seventy on March 16, 1996. In his honor, colleagues and friends will organize an International Conference on Analysis and Mechanics of Continuous Media in HoChiMinh City. The conference will be held from December 27 to 29, 1995 some time ahead of his birthday so as to enable guests from abroad to participate.

Professor Ang has worked in several areas of Applied Analysis, ranging from Inverse Problems and Nonlinear Analysis to Elasticity. He has authored or co-authored over one hundred publications in Applied Functional Analysis and Mechanics of Continuous Media. Near seventy, he is as active as ever. A glimpse at the attached list of his publications during the past six years (1990-1995) will show how versatile and prolific he is. He is advising seven doctoral students. From 1983 to 1992, three students obtained their doctorate from him: one of them won the prestigious Humboldt Fellowship, another was appointed to an Assistant Professorship in a US university. Several others, whom he had initiated to mathematical research, are now on the faculties of some major universities in France, the US and Australia.

Professor Ang has held visiting positions in some well-known universities in the US, and in Europe: Senior Research Fellow in Aeronautics, then in Geophysics at CalTech (California Institute of Technology), Associate Geophysicist at UCLA (University of California at Los Angeles), Visiting Professor of mathematics at the University of Utah, at the University of Paris 13, at the Mauro Picone Institute of Applied Mathematics in Rome, DFG Visiting Researcher at the Institute of Mathematics of Berlin Free University, and has lectured at Cambridge University and other famous scientific centers in Europe.

Dang Dinh Ang received his scientific education in US universities: BS from KU (University of Kansas), Ph. D. from CalTech. At KU, he studied

Aeronautical Engineering from 1953 to 1955, in which year he received an award from the Institute of Aeronautical Sciences for his memoir on compressible fluid flow. He recalled, not without some nostalgia, his experiences at KU, where he had to complete a number of flight hours for graduation as an aeronautical engineer, where his flight instructor would, on week-ends, take him on a two-seat Cessna for an aerial tour of nearby Kansas City, just for pleasure. After graduation from KU, he went to CalTech for graduate work. Three years later, in 1958, he obtained his doctorate with a thesis which is a blend of Analysis and Mechanics. He spent two years at CalTech as a Post-doctoral Fellow, then returned to VietNam in 1960 to assume the chairmanship of the Department of Mathematics of the University of Saigon. As head of the Department, he modernized the curriculae, introducing into the undergraduate programs subjects that had not been taught there before, like Topology, Modern Algebra, and Functional Analysis. Three years later, he instituted the graduate level certificate of Mathematiques Approfondies, which was also open to gifted undergraduates. He was Chairman until 1975, after which date he became Director of the Laboratory of Analysis, a position he held until last April.

A portrait of this dedicated scientist and teacher would not be complete without mention of his family life. He and Minh Thi got married in 1950. When he left for the US in 1953, they had two children, a daughter and a son. She took care of them until his return, seven years later, when they were ready to "take lessons" from Papa. The daughter was to become a Pediatrician, and the son was to get a Doctorate in Mathematics from Princeton University. They have another son, now an Assistant Professor of Mathematics in a US university. The two youngest of the family are daughters, one of them got a Doctorate in Mathematics from the University of Utah this year, while the other is an M.A. in TESL (Teaching of English as a Second Language).

A last word about this remarkable man, whose warmth and human qualities have won him many friends. Though rather strict to himself, he is, with life, gentle and "accepting". The following stanza is from a poem dedicated to him by a friend¹:

*"For Dee, the problems seem to open
Like a delicate blossom, offering their
Fragrance and beauty which he shares*

¹Don H. Tucker, Professor of Mathematics, University of Utah

With us as fully as we can understand”.

Professor Ang will go still farther in his career, in the realization of his dreams and in the fulfillment of his obligations to Society.

Some recent publications

1. (with K. Schmitt and L. K. Vy) *Noncoercive variational inequalities: some applications*, Nonlinear Analysis, TMA 15 No. 6 (1990), 497-512.
2. (with T. Thanh) *A nonlinear pseudoparabolic equation*, Proc. Roy. Soc. Edinburgh 114 A (1990), 119-133
3. *On the backward parabolic equation: a critical survey of some current methods*, Numerical Analysis and Math. Modelling, Publication Banach Math. International Center 24, Warsaw 1990.
4. (with K. Schmitt and L. K. Vy) *Variational inequalities and the contact of plates*, Lect. Notes Pure and Appl. Math. M. Dekker 133 (1991), pp 1-19.
5. (with R. Gorenflo) *A nonlinear Abel integral equation*. Lect. Notes Control and Information Sciences, Editors Hoffmann-Krabs, Springer (1991), 26-37.
6. (with E. S. Folias and F. Keinert) *Penetration mechanics: predicting the location of a viscoplastic boundary and its effects on the stresses*, International J. Solids and Structures 28 (1991)
7. (with D. D. Hai) *On the backward parabolic equation*, Ann. Polon. Math. LIII (1991)
8. (with L. K. Vy) *Regularized solutions of a three-dimensional inverse scattering problem*, Inverse Problems 8 (1992), 499-507.
9. (with L. K. Vy) *Identification of coefficients in an inhomogeneous Helmholtz equation by asymptotic regularization*, Inverse Problems 8 (1992), 508-523.
10. (with R. Gorenflo and D. D. Hai) *Regularization of a generalized Abel integral equation*, Applicable Analysis 45 (1992), 321-332.
11. (with K. Schmitt and L. K. Vy) *P-coercive variational inequalities and unilateral problems for Von Karman's equations*, WSSIA A 1, World Scientific Publ. (1992), 15-29.
12. (with D. N. Thanh and V. V. Thanh) *Regularized solutions of a Cauchy problem for the Laplace equation in an irregular strip*, J. Integ. Eqs and Applies 5 (1993), 429-441.
13. (with L. K. Vy and R. Gorenflo) *A regularization method for the moment*

problem, In "Inverse Problems: Principles and Applications", Math. Research vol. 74, Akademie Verlag 1993, 37-44.

14. (with L. K. Vy) *Stabilized approximation of parameters in a variational inequality*, Model Optimization in Exploration Geophysics 6 (1993), 1-16.

15. (with R. Gorenflo and L. K. Vy) *Backus-Gilbert regularization of a moment problem*. Preprint No. A-7/93, Institute of Mathematics, Freie Universität Berlin, 1993.

16. (with D. D. Trong) *Asymptotic behavior of solutions of the equations of compressible heat conductive flows*, Proceedings, International Conf. "Geometric Analysis and Continuum Mechanics" in honor of Robert Finn, Stanford U., Calif. August 1993, International Press, 1995.

17. (with D. D. Trong) *Coefficient identification for a parabolic equation*, Inverse Problems 10 (1994), 733-752.

18. (with D. D. Trong) *Global solutions of a free boundary problem in heat and mass transfer for polymeric materials*, Results in Mathematics 26 (1994), 155-177.

19. (with R. Gorenflo) *Degenerate and nondegenerate nonlinear Abel integral equation of the first kind*, Nonlinear Analysis TMA 22, no 1 (1994), 63-72.

20. (with L. K. Vy) *Contact of a plate with an elastic body: an interface model*, J. Elasticity 35 (1994), pp 1-26.

21. (with L. K. Vy) *More on applications and extensions of P-coercive variational inequalities*, Acta Mathematica Vietnamica 19 (1994), 51-70.

22. (with N. Cam) *Remarks on the identification problem for elliptic equations*, Proceedings, International Workshop "Inverse Problems" HoChiMinh City, January 1995, editors: Ang-Gorenflo et al., Public. no 2, HoChiMinh Math. Soc., 1995, 21-23.

23. (with R. Gorenflo and D. N. Thanh) *Regularization for a two dimensional inverse Stefan problem*, Proceedings, International Workshop "Inverse Problems" HoChiMinh City, January 1995, editors: Ang-Gorenflo et al. Public. no 2, HoChiMinh Math. Soc., 1995, pp. 45-54.

24. (with L. K. Vy) *Domain identification for harmonic functions*, Acta Applicandae Mathematicae 38 (1995), 217-238.

25. (with L. K. Vy) *Some extensions and applications of P-coercive variational inequalities*, Proceedings, First World Congress of Nonlinear Analysts, De Gruyter, Berlin, 1995.

26. (with R. Gorenflo and L. K. Vy) *A uniqueness theorem for a nonlinear*

integral equation of gravimetry Proceedings, First World Congress Nonlinear Analysts, De Gruyter Berlin, 1995.

27. (with L. K. Vy) *Contact of a plate with an elastic body*, Zeitschrift f. Ang. Mathematik u. Mech. (ZAMM) **75** no 2 (1995), 115-126.

28. (with L. K. Vy) *Frictional contact of an elastic body with a rigid support*, Nonlinear Analysis TMA **25** no 4 (1995), 339-343.

29. (with A. P. N. Dinh and D. N. Thanh) *Regularization of an inverse Stefan problem*, Diff. and Integ. Equations (in press).

30. (with A. P. N. Dinh and D. N. Thanh) *An inverse Stefan problem: identification of boundary values*, J. Computational Math. (in press).

* HOCHIMINH CITY UNIVERSITY

** HUNG VUONG UNIVERSITY, HOCHIMINH CITY

*** INSTITUTE OF MATHEMATICS, HANOI

integral equation of gravimetry Proceedings, First World Congress Nonlinear Analysts, De Gruyter Berlin, 1995.

27. (with L. K. Vy) *Contact of a plate with an elastic body*, Zeitschrift f. Ang. Mathematik u. Mech. (ZAMM) 75 no 2 (1995), 115-126.

28. (with L. K. Vy) *Frictional contact of an elastic body with a rigid support*, Nonlinear Analysis TMA 25 no 4 (1995), 339-343.

29. (with A. P. N. Dinh and D. N. Thanh) *Regularization of an inverse Stefan problem*, Diff. and Integ. Equations (in press).

30. (with A. P. N. Dinh and D. N. Thanh) *An inverse Stefan problem: identification of boundary values*, J. Computational Math. (in press).

* HOCHIMINH CITY UNIVERSITY

** HUNG VUONG UNIVERSITY, HOCHIMINH CITY

*** INSTITUTE OF MATHEMATICS, HANOI