

Jointly Authored Peer-reviewed Archived Publications

1. Chopra, A. K. , Chakrabarti, P and Dasgupta, G Dynamic stiffness matrices for viscoelastic half-plane foundations, *Journal of the Engineering Mechanics Division*, American Society of Civil Engineers, vol. 102, no. 3, 1976, pp. 497-514.
2. G. Dasgupta and J. M. Kelly, Projectile impact on a thin, flexible structure - singular dynamic contact phenomenon *Journal of Structural Mechanics*, Marcel Dekker, vol. 5, no. 1, 1977, pp. 19-31.
3. Dasgupta, G. and Sackman, J. L., An alternative representation of elastic-viscoelastic correspondence principle for harmonic oscillations, *Journal of Applied Mechanics – Transactions of the ASME*, vol. 44, no. 1, 1977, pp. 57 - 60.
4. G. Dasgupta and J. M. Kelly, Analysis of localized dynamic contact on structures using matched asymptotic expansions, *Journal of Structural Mechanics*, Marcel Dekker, vol. 6, no. 1, 1978, pp. 29 - 44.
5. G. Dasgupta and J. L. Sackman, A Quadrature representation of the viscoelastic analogy in the frequency domain, *Journal of Applied Mechanics – Transactions of the ASME*, vol. 45, December 1978, pp. 955-956.
6. G. Dasgupta and A. K. Chopra, “Dynamic Stiffness Matrices for Homogenous Viscoelastic Half Plane,” *Journal of the Engineering Mechanics Division*, American Society of Civil Engineers, Vol. 105, No. EM5, October 1979, pp. 729 - 745.
7. M. L. Moss, R. Skalak, G. Dasgupta and H. Vilmann, Space, time, and space-time in craniofacial growth, *American Journal of Orthodontics*, C. V. Mosby, vol. 77, no. 6, June 1980, pp. 591 612.
8. M. L. Moss, H. Vilmann, G. Dasgupta and R. Skalak, Craniofacial growth in space-time, Craniofacial Biology, *Craniofacial growth series*, Center for Human Growth and Development, Monograph no. 10, , 1981, pp. 61 - 81.
9. R. Skalak, G. Dasgupta, M. L. Moss, E. Otten P. Dullemeijr, and H. Vilmann, Analytical Description of Growth, *Journal of Theoretical Biology*, vol. 94, 1982, pp. 555 - 577.
10. L-J Lee and G. Dasgupta, Interaction of nonlinear interiors with linear infinite domains, Numerical Methods for Transient and Coupled Problems, a *Special Volume of Communications in Applied Numerical Methods*, Wiley-InterScience, July 1984, pp. 428 - 438.
11. L-J Lee and G. Dasgupta, Interaction of nonlinear interiors with linear infinite exteriors, *Computers and Structures*, Pergamon Press, vol. 20, no. 1, 1985, pp. 339 - 353.

12. X. Lee and G. Dasgupta, Analysis of structural variability with computer algebra, *Journal of the Engineering Mechanics Division*, American Society of Civil Engineers, vol. 114, no. 1, January 1988, pp. 161 - 171.
13. A. P. S. Selvadurai and G. Dasgupta, Harmonic response of smoothly embedded rigid sphere, *Journal of the Engineering Mechanics Division*, American Society of Civil Engineers, vol. 116, no. 9, September 1990, pp. 1945 - 1958.
14. O. Vilmann, and G. Dasgupta, Fundamental solutions for stochastic Mindlin plates, *International Journal of Engineering Analysis with Boundary Elements*, Computational mechanics Publication, Ashurst, UK, vol. 9, 1992, pp. 47 - 59.
15. Finite element analysis of viscoplastic soils with Q-factor, Gyebi, O. K. and Dasgupta, G., *Soil dynamics and earthquake engineering*, vol. 11, no4, 1992, pp. 187 - 192.
16. McAlarney, M. E. , G. Dasgupta, M. L. Moss and L. Moss-Salentijn, Anatomical macro element in the study of cranial facial rat growth, *Journal of Cranial Facial Growth and Developmental Biology*, vol. 12, 1992, pp. 312.
17. Weiner C, Sara M, Dasgupta G, Affinity Cross-flow Filtration - purification of IGG with a Novel Protein-A Affinity Matrix Prepared From 2-dimensional Protein Crystals, *Biotechnology and Bioengineering*, vol. 44, no. 1, June 5, 1994, pp. 55-65.
18. Gautam Dasgupta and Jacques Treil, "Maxillo-Facial Frame: Finite Element Shapes," *The Mathematica Journal*, vol. 8, no. 3. 2001, pp. 235-246.
19. Gautam Dasgupta, Alexander N. Papusha and Elisabeth Malsch, "First order stochasticity in boundary geometry: a computer algebra BE development," *International Journal of Engineering Analysis with Boundary Elements*, Computational mechanics Publication, Ashurst, UK, vol. 25, no. 9, October, 2001, pp. 741-751.
20. Gautam Dasgupta and Elisabeth Anna Malsch, Boundary element color interpolation for instrumentation, imaging and internet graphics industries, *International Journal of Engineering Analysis with Boundary Elements*, Computational mechanics Publication, Ashurst, UK, vol. 26, no. 5, May, 2002, pp. 379-389.
21. Elisabeth Anna Malsch and Gautam Dasgupta, Algebraic Construction of Smooth Interpolants on Polygonal Domains, *Challenging the Boundaries of Symbolic Computation*, Computational mechanics Publication, Ashurst, UK, Ashurst, UK, 2003 pp. 81 - 88.
22. Malsch, E. A. and Dasgupta, G., Algebraic construction of smooth interpolants on polygonal domains. *The Mathematica Journal*, vol. 9, no. 3, 2005, pp. 641 - 658.
23. Elisabeth Malsch and Gautam Dasgupta, "Shape functions for polygonal domains with interior nodes," *International Journal for Numerical Methods in Engineering*, vol.61, 2004, pp. 1153-1172.

24. Elisabeth A. Malsch and Gautam Dasgupta, “Interpolation constraints and thermal distributions: a method for all non-concave polygons, *International Journal of Solids and Structures*, vol. 41, no. 8, 2004, pp. 2165–2188.
25. Elisabeth A. Malsch, John Jeffy Lin and Gautam Dasgupta “Smooth two dimensional interpolants: a recipe for all polygons,” *Journal of Graphics Tools*, vol. 10, no. 2, 2005, pp. 27-39.
26. Elisabeth A. Malsch and Gautam Dasgupta, “Algebraic construction of smooth interpolants on polygonal domains,” *The Mathematica Journal*, vol. 9, no. 3, 2005, pp. 641–658.
27. Dasgupta G., Wachspress E. L., Basis functions for concave polygons, *Computers and Mathematics with Applications*, vol. 55, no. 9, May, 2008, pp. 1988-1997.
28. Dasgupta G., Wachspress E. L., Basis functions for concave polygons, *Computers and Mathematics with Applications*, vol. 56, no. 2, July, 2008, pp. 459-468.
29. (*¹) Braga J., Subsol G., Thackeray F. and Dasgupta G., Evolution of Late Pliocene hominin midfacial morphology. An approach using three-dimensional surface registration, *American Journal of Physical Anthropology*, Suppl. 46, 2008, pp. 72.
30. (*) Braga J., Thackeray F., Subsol G., Treil, J. and Dasgupta, G. Important variations in dental trait expression at the EDJ throughout an *Australopithecus africanus* entire postcanine dentition, *American Journal of Physical Anthropology*, Suppl. 48, 2009, pp. 97.

¹shown as journal publication in Web of Science®