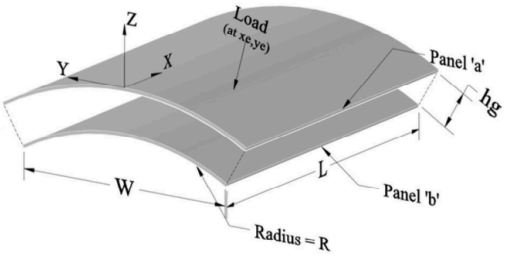

Figure 3. Schematic diagram of double-wall curved panel

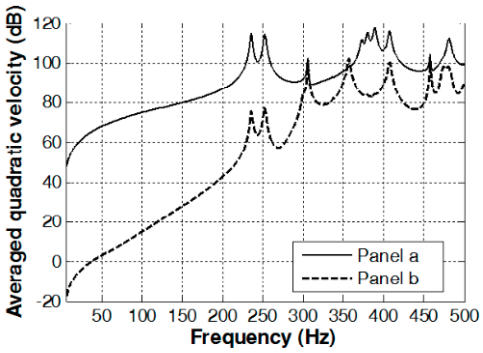

Figure 4. Average quadratic velocity of panels

Professor Partha Bhattacharya

The middle and right-most images above are from: Atanu Sahu, Subha Ghosh, Partha Bhattacharya, Oliver Unruh, Thomas Haase and Michael Rose, "Energy transmission through curved double-wall panel: A numerical approach", The 21st International Congress on Sound and Vibration (ICSV21), Beijing, China, 13-17 July, 2014

See:
https://www.researchgate.net/profile/Partha_Bhattacharya2

Department of Civil Engineering, Jadavpur University, Kolkata, India

Selected Publications:

Bhattacharya P, Suhail H, Sinha PK. Finite element free vibration analysis of smart laminated composite beams and plates. J Intell Mater Syst Struct 1998;9:20–8.

P. Bhattacharya, H. Suhail and P. K. Sinha, "Smart Laminated Shells and Deflection Control Strategy with Optimal Voltage," Journal of Reinforced Plastics and Composites, Vol. 19, No. 16, 2000, pp. 1293-1316.

S. Raja, P. K. Sinha, G. Prathap, and P. Bhattacharya. Influence of one and two dimensional piezoelectric actuation on active vibration control of smart panels. Aerospace Science and Technology, 209-216:6, 2002.

P. Bhattacharya, H. Suhail and P. K. Sinha, "Finite Element Analysis and Distributed Control of Laminated Composite Shells Using LQR/IMSC Approach," Aerospace Science and Technology, Vol. 6, No. 4, 2002, pp. 273-281.

P. Bhattacharya, M. Rose And O. Heintze, "Active structural acoustic control of laminated Plates using RME technique", 9th International Conference on Vibrations Problems, IIT Kharagpur, India, 19-22 January, 2009

Partha Bhattacharya and Atanu Sahu, "Free field acoustic radiation of composite plates with surface bonded PFC using RME technique", Journal of Acoustical Society of India, Vol. 40, pp 1-14, 2013

Atanu Sahu, Tirtha Banerjee, Arup Guha Niyogi and Partha Bhattacharya, "Active Control of Radiated Sound from Stiffened Plates Using IDE-PFC Actuators, Int J Acoust Vib., 18(3), pp. 109-116, 2013.

Partha Bhattacharya, Oliver Unruh and Michael Rose, "Noise transmission analysis through a mechanically coupled finite double wall panel", Acoustis2013, New Delhi, India, November 10-15, 2013

Partha Bhattacharya, Atanu Sahu, Arup Guha Niyogi and Michael Rose, "A novel FE-BE approach for free field vibro-acoustic problem", Acoustis2013, New Delhi, India, November 10-15, 2013

Atanu Sahu, Subha Ghosh, Partha Bhattacharya, Oliver Unruh, Thomas Haase and Michael Rose, "Energy transmission through curved double-wall panel: A numerical approach", The 21st International Congress on Sound and Vibration (ICSV21), Beijing, China, 13-17 July, 2014

Partha Bhattacharya, Debabrata Podder and Atanu Sahu, "Effects of active damping on parametric instability of composite cylindrical shells using piezo fiber composites", International Journal of Aerospace and Lightweight Structures, Vol. 3, No. 4, pp 445-471, 2014

Shivaji T. Bidgar and Partha Bhattacharya, "A strain based non-linear finite element analysis of the exterior beam column Joint", Advances in Structural Engineering, 2015

Subha Ghosh and Partha Bhattacharya, “Energy transmission through a double-wall curved stiffened panel using Green’s theorem”, Journal of Sound and Vibration, Vol. 342, pp 218-240, April 2015
Atanu Sahu and Partha Bhattacharya, “Active structural acoustic control of sound transmission into a laminated composite enclosure using piezoelectric actuator-sensor pair with a frequency weighted optimal H2 controller”, Proceedings of the ASME 2015 Conference on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS2015), Colorado Springs, USA, September 21-23, 2015
Atanu Sahu, Partha Bhattacharya, Arup Guha Niyogi, and Michael Rose, “A mobility based vibroacoustic energy transmission simulation into an enclosure through a double-wall panel”, The Journal of the Acoustical Society of America 141, EL598 (2017), https://doi.org/10.1121/1.4989729