FROM THE EDITOR

Welcome again to Science Diliman. Four articles and a short communication are featured in this December 2016 issue. The topics discussed are a mixture of physical and natural sciences. Rather than the usual measurement of physicochemical parameters in the assessment of water quality of freshwater streams, Deborde, Hernandez and Magbanua used benthic macroinvertebrates as bioindicators. The paper concludes that macroinvertebrates can be successfully used to differentiate water quality of the streams. The manuscripts by the research groups of mathematicians Merino, Kunwor, and Walls; Aala, Jose and Roque; and physicists Paraan and Laurente are quite challenging and only experts in the respective fields can fully appreciate their conclusions. Let me try to go over the main points. The manuscript of Aala, Jose and Roque gave a unique solution to a parabolic partial differential equation whose application is on the heat transfer in a perforated cell. The research group of Merino, Kunwor, and Walls discussed the application of Mobius transformation into a sub-group of Vahlen matrices, and in the process, provided results on eigenvalues with entries in Clifford algebra. Paraan and Laurente discussed the work they did on the quantum Ising model. A preliminary study by Chichioco-Hernandez and Isah showed the potential cholesterol lowering activity of plant extracts. The activity was measured by the inhibition of β -hydroxy- β methylglutaryl-Coenzyme A reductase (HMG-CoA reductase). Layman's abstracts for the non-specialists are also included.

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