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## Deformation quantization of symmetric Kähler manifolds

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A deformation quantization with separation of variables is one of wellknown quantizations of Kahler manifolds. Explicit expressions of the quantization for  $C^N$ ,  $CP^N$  and  $CH^N$  were known. We derive algebraic recurrence relations to obtain a deformation quantization with separation of variables for a locally symmetric Kahler manifold.  $C^N$ ,  $CP^N$  and  $CH^N$  were locally symmetric Kahler manifolds and Riemann surfaces are also locally symmetric Kahler manifolds. It is not easy to solve the recurrence relations but some are solvable. We found a deformation quantization with separation of variables for Riemann surfaces.

### Biography

Kentaro Hara has completed his Master's degree from Tokyo Metropolitan University. He is pursuing his Doctoral course at the Tokyo University of Science. He has published a paper in reputed journals like *Journal of Geometry and Physics*.

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