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CHANGE

# Analysis and PDE Seminar

**Dr. Baoping Liu**

Department of Mathematics,  
Peking University

TITLE: Wellposedness for the KdV hierarchy

*Date* : Sept 29th, 2022 (Thursday)

*Time* : 10am-11am (Hong Kong time)  
11am-12noon (Korea time)



*Link to ZOOM* : <https://unist-kr.zoom.us/j/3170659442>

Meeting ID : 317 065 9442

Password : APDE21

**Abstract.** The KdV hierarchy is a hierarchy of integrable equations generalizing the KdV equation. Using the modified Muria transform, we first relate it to the Gardner hierarchy, and by exploiting the idea of approximate flow, we show that the whole hierarchy is wellposed for initial data in  $H^{-1}$ . This is based on joint work with H. Koch and F. Klaus.

*All are welcome*

This is a joint activity organized by Department of Mathematics, The Chinese University of Hong Kong, Hong Kong; Department of Mathematics, Institute of Mathematical Research, Research Division of Mathematical and Statistical Science, The University of Hong Kong, Hong Kong; and Department of Mathematical Sciences, Ulsan National Institute of Science and Technology, Korea. More details can be found in [https://hkumath.hku.hk/~imr/event/CUHK\\_HKU\\_UNIST\\_Analysis\\_and\\_PDE/index.php](https://hkumath.hku.hk/~imr/event/CUHK_HKU_UNIST_Analysis_and_PDE/index.php).

