

# Complex hyperbolic lattices

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## **Abstract**

A complex hyperbolic lattice is a discrete group of Bergman isometries of the unit complex ball with quotient of finite volume. Some lattices arise from arithmetic but it is known that in complex dimensions 2 and 3 there are examples of non-arithmetic complex hyperbolic lattices. In higher dimensions this is unknown and is an important open question. In this talk I will give a gentle introduction to the topic that focuses on a particular class of examples, namely lattices constructed from equilateral triangle groups.