1012-14-221 **D Arinkin*** (arinkin@caltech.edu), Caltech Math Department, MC 253-37, Pasadena, CA 91125. *Liouville Theorem for quantized completely integrable systems.* Preliminary report.

In one of its formulations, the Liouville Theorem claims that (under certain assumptions) a completely integrable system $A \to B$ carries a natural group structure m. The symplectic structure agrees with m in the sense that $A \to B$ is a Poisson groupoid.

Our result is a 'deformation quantization' of the Liouville Theorem. Let $\tilde{A} \to \tilde{B}$ be a deformation quantization of $A \to B$ (such quantized completely integrable systems are also known as polarized quantizations). We claim that, under similar assumptions, $\tilde{A} \to \tilde{B}$ has a structure of a quantum groupoid. (Received September 20, 2005)