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Alexandru Chirvasitu* (chirva@uw.edu), Department of Mathematics, University of Washington, Seattle, WA 98195, and **Souleiman Omar Hoche** and **Pawel Kasprzak**. *Lattices of subgroups for locally compact quantum groups*.

The lattice of subgroups of a discrete group is the subject of numerous results revolving around the central theme of decomposing the group into "chunks" (subquotients) that can then be compared to one another in various ways.

Examples of results in this class would be the Noether isomorphism theorems, Zassenhaus' butterfly lemma, the Schreier refinement theorem for subnormal series of subgroups, the Dedekind modularity law, and last but not least the Jordan-Holder theorem.

We discuss analogues of the above-mentioned results in the context of quantum groups of two flavors: compact (cast mathematically as objects dual to certain well-behaved cosemisimple Hopf algebras) and discrete, which are Pontryagin duals of the former. Time permitting, the talk will also touch on the difficulties of extending such results to the more general setting of locally compact quantum groups (which simultaneously generalizes the two cases).

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