SEMINAR ON CONTINUITY IN SEMILATTICES (SCS) 36a

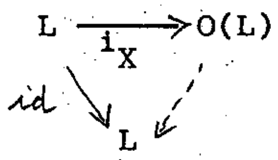
NAME(S)	Keimel - Gierz	DATE	M	D	Y
			May	23	77

TOPIC Comments to: D. Scott "Quotients of distributive continuous lattices: A result of S.A Jalali"

REFERENCE

It is well known, that for every compact (= compact T_2-) space X the lattice $O(X)$ of open subsets is the free continuous lattice over X, i.e. there is a continuous map $i_X : X \longrightarrow O(X)$ such that for every continuous map $f : X \longrightarrow L$ (L any continuous lattice) there is a unique continuous morphism (=CL-morphism) $\overline{f} : O(X) \longrightarrow L$ such that $f = \overline{f} i_X$.

Applying this to the situation



yields that L is a quotient of O(L) for continuous lattices L. As $O(-)$ is - by the universal property - a free functor from the category of compact spaces to CL, it preserves quotients.

The proofs given in the paper cited in the title are probably the easiest elementary proofs for these facts. In section 3 of

Gierz - Keimel: A lemma on primes ...

there is a proof of the above facts but embedded in a more complicated set-up. If one peels out what one needs for this special situation one just ends up with the same proofs than the ones given by Scott - Jalali.

West Germany: TH Darmstadt (Gierz, Keimel)
U. Tübingen (Mislove, Visit.)

England: U. Oxford (Scott)

USA: U. California, Riverside (Stralka)
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