

CONJECTURE 1935. Let $(\mathfrak{A}, \mathfrak{B}) = (\mathfrak{A}, \mathfrak{B})_{i \in n}$ be a family of filtrators on boolean lattices.

A relation $\delta \in \mathcal{P} \prod \text{atoms}^{\mathfrak{A}_i}$ such that for every $a \in \prod \text{atoms}^{\mathfrak{A}_i}$

$$\forall A \in a : \delta \cap \prod_{i \in n} \text{atoms} \uparrow^{\mathfrak{B}_i} A_i \neq \emptyset \Rightarrow a \in \delta \quad (37)$$

can be continued till the function $\uparrow\uparrow f$ for a unique staroid f of the form $\lambda i \in n : \mathfrak{A}_i$. The funcoïd f is completary.

CONJECTURE 1936. For every $\mathcal{X} \in \prod_{i \in n} \mathcal{F}(\mathfrak{A}_i)$

$$\mathcal{X} \in \text{GR} \uparrow\uparrow f \Leftrightarrow \delta \cap \prod_{i \in n} \text{atoms} \mathcal{X}_i \neq \emptyset. \quad (38)$$

CONJECTURE 1937. Let R be a set of staroids of the form $\lambda i \in n : \mathcal{F}(\mathfrak{A}_i)$ where every \mathfrak{A}_i is a boolean lattice. If $x \in \prod_{i \in n} \text{atoms}^{\mathcal{F}(\mathfrak{A}_i)}$ then $x \in \text{GR} \uparrow\uparrow \prod R \Leftrightarrow \forall f \in R : x \in \uparrow\uparrow f$.

There exists a completary staroid f and an indexed family X of principal filters (with arity $f = \text{dom } X$ and $(\text{form } f)_i = \text{Base}(X_i)$ for every $i \in \text{arity } f$), such that $f \sqsubseteq \prod^{\text{Strd}} X$ and $Y \sqcap X \notin \text{GR } f$ for some $Y \in \text{GR } f$.

CONJECTURE 1938. There exists a staroid f and an indexed family x of ultrafilters (with arity $f = \text{dom } x$ and $(\text{form } f)_i = \text{Base}(x_i)$ for every $i \in \text{arity } f$), such that $f \sqsubseteq \prod^{\text{Strd}} x$ and $Y \sqcap x \notin \text{GR } f$ for some $Y \in \text{GR } f$.

Other conjectures:

CONJECTURE 1939. If staroid $\perp \neq f \sqsubseteq a_{\text{Strd}}^n$ for an ultrafilter a and an index set n , then $n \times \{a\} \in \text{GR } f$. (Can it be generalized for arbitrary staroidal products?)

CONJECTURE 1940. The following posets are atomic:

- 1°. anchored relations on powersets;
- 2°. staroids on powersets;
- 3°. completary staroids on powersets.

CONJECTURE 1941. The following posets are atomistic:

- 1°. anchored relations on powersets;
- 2°. staroids on powersets;
- 3°. completary staroids on powersets.

The above conjectures seem difficult, because we know almost nothing about structure of atomic staroids.

CONJECTURE 1942. A staroid on powersets is principal iff it is complete in every argument.

CONJECTURE 1943. If a is an ultrafilter, then $\text{id}_{a[n]}^{\text{Strd}}$ is an atom of the lattice of:

- 1°. anchored relations of the form $(\mathcal{P} \text{Base}(a))^n$;
- 2°. staroids of the form $(\mathcal{P} \text{Base}(a))^n$;
- 3°. completary staroids of the form $(\mathcal{P} \text{Base}(a))^n$.

CONJECTURE 1944. If a is an ultrafilter, then $\uparrow\uparrow \text{id}_{a[n]}^{\text{Strd}}$ is an atom of the lattice of:

- 1°. anchored relations of the form $\mathcal{F}(\text{Base}(a))^n$;
- 2°. staroids of the form $\mathcal{F}(\text{Base}(a))^n$;
- 3°. completary staroids of the form $\mathcal{F}(\text{Base}(a))^n$.