$\begin{array}{c} {\rm COVERING\ AND\ +-COVERING\ NUMBERS}\\ {\rm OF\ ANALYTIC\ IDEALS} \end{array}$

Streszczenie

For an ideal $\mathcal J$ on ω , we will be interested in the following two cardinal invariants:

```
\begin{array}{l} \operatorname{cov}^*(\mathcal{J}) = \min\{|\mathcal{F}| : \mathcal{F} \subseteq \mathcal{J} \text{ and every } X \in [\omega]^\omega \text{ infinitely intersects some } F \in \mathcal{F}\} \\ \operatorname{cov}^*_+(\mathcal{J}) = \min\{|\mathcal{F}| : \mathcal{F} \subseteq \mathcal{J} \text{ and every } X \in \mathcal{J}^+ \text{ infinitely intersects some } F \in \mathcal{F}\} \end{array}
```

For ideals which are analytic P-ideals or F_{σ} will show how these invariants relate to Cichoń's diagram as well as other classical cardinal characteristics of the continuum.

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