

## Werk

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Let  $\varepsilon > 0$ ,  $t \in [\alpha, \beta]$ . Then there exists a positive integer  $i$  with the following property: if  $y \in B(x, i^{-1})$  then

$$(7) \quad S(t, y) \subset \Omega(S(t, x), \varepsilon).$$

On the other hand, as the set  $V$  is at most countable and all  $v_j \in V$  are solutions of (6), there exists a set  $D \subset [\alpha, \beta]$  with  $m(D) = \beta - \alpha$  such that

$$(8) \quad \dot{v}_j(t) \in S(t, v_j(t)) \quad \text{for } t \in D \cap J_{v_j}, \quad j = 1, 2, \dots.$$

Let  $x \in \bar{B}(0, 1)$ ,  $t \in D \cap A$ . Then we have in virtue of the definition of  $Q_i$  (see (2))

$$(9) \quad Q_i(t, x) = \overline{\text{conv}} \{ \dot{v}_p(t) \mid v_p(t) \in \bar{B}(x, i^{-1}) \} \subset \overline{\text{conv}} \bigcup_p S(t, v_p(t))$$

where the union is taken over all  $p$  such that

$$v_p(t) \in \bar{B}(x, i^{-1}).$$

Consequently, (7) and (9) together imply

$$Q(t, x) = \bigcap_{i=1}^{\infty} Q_i(t, x) \subset \Omega(S(t, x), \varepsilon).$$

The number  $\varepsilon > 0$  has been arbitrary, hence the last inclusion holds for all  $\varepsilon > 0$ . This implies immediately  $Q(t, x) \subset S(t, x)$  for all  $t \in D \cap A$ , i.e. for almost all  $t \in [\alpha, \beta]$  which completes the proof of the theorem.

#### References

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- [3] Krbec, P. and Kurzweil, J.: Kneser's theorem for multivalued differential delay equations. Časopis pěst. mat. 104 (1979), 1—8.

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