$$\operatorname{proj \, lim}_{i \in I} A_i = \varprojlim_{i \in I} A_i$$

Inline: proj $\lim_{i \in I} A_i = \varprojlim_{i \in I} A_i$

$$\inf_{i \in I} \lim_{A_i} A_i = \lim_{i \in I} A_i$$

Inline: inj $\lim_{i \in I} A_i = \underset{i \in I}{\underline{\lim}} A_i$

$$\limsup_{n\to\infty} a_n = \overline{\lim}_{n\to\infty} a_n$$

Inline: $\limsup_{n\to\infty} a_n = \overline{\lim}_{n\to\infty} a_n$

$$\lim_{n \to \infty} \inf a_n = \lim_{n \to \infty} a_n$$

Inline: $\lim \inf_{n\to\infty} a_n = \underline{\lim}_{n\to\infty} a_n$