$$0 \longrightarrow \varprojlim(A, -) \longrightarrow \prod(A, -) \longrightarrow \liminf(A, -) \longrightarrow 0$$

$$\downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow \qquad \qquad \downarrow$$

$$0 \longrightarrow (\varinjlim A, -) \longrightarrow (\coprod A, -) \longrightarrow (\coprod A, -) \longrightarrow \operatorname{Ext}^{1}(\varinjlim A, -) \longrightarrow \operatorname{Ext}^{1}(\coprod A, -) \longrightarrow \operatorname{Ext}^{1}(\coprod A, -)$$