Collision partners

Any ice particles (explicit PSD)

Loss

Gain

Changes to moments

\[
\frac{\partial Q}{\partial t} = 0
\]

\[
\frac{\partial N}{\partial t} < 0
\]

\[
\frac{\partial Q_i}{\partial t} < 0; \quad \frac{\partial Q_s}{\partial t} = -\frac{\partial Q_i}{\partial t}
\]

\[
\frac{\partial N_i}{\partial t} < 0; \quad \frac{\partial N_s}{\partial t} = -\frac{1}{2} \frac{\partial N_i}{\partial t}
\]

\[
\frac{\partial Q_i}{\partial t} < 0; \quad \frac{\partial Q_s}{\partial t} = -\frac{\partial Q_i}{\partial t}
\]

\[
\frac{\partial N_i}{\partial t} < 0; \quad \frac{\partial N_s}{\partial t} = 0
\]

\[
\frac{\partial Q_s}{\partial t} = 0
\]

\[
\frac{\partial N_s}{\partial t} < 0
\]