$$
\begin{prooftree}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash (\mathrm{s}(m)+n):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash m:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash (m+n):\mathbb{N}$}
\RightLabel{$TODO$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m+n):\mathbb{N}$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash (\mathrm{s}(m)+n=\mathrm{s}(m+n))$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m{:}\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m+0\equiv m:\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m\equiv m+0:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m)\equiv\mathrm{s}(m)+0:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{refl}_{\mathrm{s}(m)}:\mathrm{s}(m)=\mathrm{s}(m)$}
\BinaryInfC{$\Gamma, m:\mathbb{N}\vdash \mathrm{refl}_{\mathrm{s}(m)}:\mathrm{s}(m)+0=\mathrm{s}(m)$}
\BinaryInfC{$\Gamma, m:\mathbb{N}\vdash \mathrm{refl}_{\mathrm{s}(m)}:\mathrm{s}(m)+0=\mathrm{s}(m+0)$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash \mathrm{s}(n):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(n):\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash (\mathrm{s}(m)+\mathrm{s}(n)):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash m:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash \mathrm{s}(n):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(n):\mathbb{N}$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash (m+\mathrm{s}(n)):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, r{:}\mathbb{N}\vdash \mathrm{s}(r):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, n{:}\mathbb{N}, r{:}\mathbb{N}\vdash \mathrm{s}(r):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, r{:}\mathbb{N}\vdash \mathrm{s}(r):\mathbb{N}$}
\RightLabel{S}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m+\mathrm{s}(n)):\mathbb{N}$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash (\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(m+\mathrm{s}(n)))$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash m:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash m+\mathrm{s}(n)\equiv\mathrm{s}(m+n):\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m+n)\equiv m+\mathrm{s}(n):\mathbb{N}$}
\RightLabel{W}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, a:\mathrm{s}(m)+n=\mathrm{s}(m+n)\vdash \mathrm{s}(m+n)\equiv m+\mathrm{s}(n):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m)+\mathrm{s}(n)\equiv\mathrm{s}(\mathrm{s}(m)+n):\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(\mathrm{s}(m)+n)\equiv\mathrm{s}(m)+\mathrm{s}(n):\mathbb{N}$}
\RightLabel{W}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, a:\mathrm{s}(m)+n=\mathrm{s}(m+n)\vdash \mathrm{s}(\mathrm{s}(m)+n)\equiv\mathrm{s}(m)+\mathrm{s}(n):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash (\mathrm{s}(m)+n):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash m{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash m:\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash\mathbb{N}$ type}
\RightLabel{δ}
\UnaryInfC{$\Gamma, n{:}\mathbb{N}\vdash n{:}\mathbb{N}$}
\RightLabel{W}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash n:\mathbb{N}$}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash (m+n):\mathbb{N}$}
\RightLabel{$TODO$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}(m+n):\mathbb{N}$}
\AxiomC{}
\UnaryInfC{$\Gamma\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{W}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\RightLabel{W}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{s}:\mathbb{N}\to\mathbb{N}$}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}:\Pi_{(x:\mathbb{N})}\Pi_{(y:\mathbb{N})}(x=y\to\mathrm{s}(x)=\mathrm{s}(y))$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, x{:}\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}(x):\Pi_{(y:\mathbb{N})}(x=y\to\mathrm{s}(x)=\mathrm{s}(y))$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, x{:}\mathbb{N}, y{:}\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}(x,y):x=y\to\mathrm{s}(x)=\mathrm{s}(y)$}
\RightLabel{S}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, x{:}\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}(x,\mathrm{s}(m+n)):x=\mathrm{s}(m+n)\to\mathrm{s}(x)=\mathrm{s}(\mathrm{s}(m+n))$}
\RightLabel{S}
\BinaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n)):\mathrm{s}(m)+n=\mathrm{s}(m+n)\to\mathrm{s}(\mathrm{s}(m)+n)=\mathrm{s}(\mathrm{s}(m+n))$}
\RightLabel{ev}
\UnaryInfC{$\Gamma, m{:}\mathbb{N}, n{:}\mathbb{N}, a:\mathrm{s}(m)+n=\mathrm{s}(m+n)\vdash \mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))(a):\mathrm{s}(\mathrm{s}(m)+n)=\mathrm{s}(\mathrm{s}(m+n))$}
\RightLabel{$TODO$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}, a:\mathrm{s}(m)+n=\mathrm{s}(m+n)\vdash \mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))(a):\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(\mathrm{s}(m+n))$}
\RightLabel{$TODO$}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}, a:\mathrm{s}(m)+n=\mathrm{s}(m+n)\vdash \mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))(a):\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(m+\mathrm{s}(n))$}
\RightLabel{λ}
\BinaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash \lambda a\,.\,\mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))(a):\mathrm{s}(m)+n=\mathrm{s}(m+n)\to\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(m+\mathrm{s}(n))$}
\RightLabel{η}
\UnaryInfC{$\Gamma, m:\mathbb{N}, n:\mathbb{N}\vdash \mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n)):\mathrm{s}(m)+n=\mathrm{s}(m+n)\to\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(m+\mathrm{s}(n))$}
\RightLabel{λ}
\UnaryInfC{$\Gamma, m:\mathbb{N}\vdash \lambda n.\mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n)):\Pi_{(n:\mathbb{N})}(\mathrm{s}(m)+n=\mathrm{s}(m+n)\to\mathrm{s}(m)+\mathrm{s}(n)=\mathrm{s}(m+\mathrm{s}(n)))$}
\RightLabel{$\mathbb{N}$-ind}
\TrinaryInfC{$\Gamma, m:\mathbb{N}\vdash \mathrm{ind}_{\mathbb{N}}(\mathrm{refl}_{\mathrm{s}(m)},\lambda n.\,\mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))):\Pi_{(n:\mathbb{N})}(\mathrm{s}(m)+n=\mathrm{s}(m+n))$}
\RightLabel{λ}
\UnaryInfC{$\Gamma\vdash \lambda m.\,\mathrm{ind}_{\mathbb{N}}(\mathrm{refl}_{\mathrm{s}(m)},\lambda n.\,\mathrm{ap}_{\mathrm{s}}(\mathrm{s}(m)+n,\mathrm{s}(m+n))):\Pi_{(m:\mathbb{N})}\Pi_{(n:\mathbb{N})}(\mathrm{s}(m)+n=\mathrm{s}(m+n))$}
\end{prooftree}
$$