$\tilde{B}^g_{nl}(t)$ as follows

$$\tilde{h}^g_{N,k}(t) = \sum_{\substack{n=2 \\ \text{even}}}^{N} \sum_{\substack{l=1 \\ \text{odd}}}^{n+1} \tilde{B}^g_{nl}(t)(-1)^{\frac{k+l-N+1}{2}} \frac{(-1+k-N)\ \Gamma(\frac{2-k+l+N}{2})}{3\cdot 2^{k+1}\Gamma(\frac{1+k+l-N}{2})\,\Gamma(2-k+N)}$$
$$\times \frac{n\ (1+n)\ (2+n)\ (3+n)\ \Gamma(N)}{\Gamma(\frac{2-n+N}{2})\,\Gamma(\frac{5+n+N}{2})}\,. \tag{B20}$$

The expression for the polarized forward like function ΔG_0 through the t-dependent polarized gluon density $\Delta g(y,t)$ reads

$$\Delta G_0(x,t) = -\frac{9}{2}x^2 \int_x^1 \frac{dy}{y^3}\Delta g(y,t) + 3x \int_x^1 \frac{dy}{y^2}\Delta g(y,t) + \frac{3}{2}\int_x^1 \frac{dy}{y}\Delta g(y,t)\,. \tag{B21}$$

Finally, to sum up the formal series for $\tilde{H}^{g\,(PS)}$ (21) the set of polarized gluon forward like functions $\Delta G^{(PS)}_{2\nu}(y,t)$ whose Mellin moments generate the generalized form factors $\tilde{B}^g_{n\,l}(t)$. with $n = 2\nu + l$

$$\tilde{B}^{g\,(PS)}_{n\,n-2\nu}(t) = \int_0^1 dy y^n \Delta G^{PS}_{2\nu}(y,t) \quad \text{with} \quad n \geq 2, \quad \text{even.} \tag{B22}$$

The resulting expression for $\tilde{H}^g$ through $\Delta G_{2\nu}$ reads

$$\tilde{H}^{g\,(PS)}(x,\xi,t) = \sum_{\nu=0}^{\infty} \frac{\xi^{2\nu}}{2}\left[\tilde{H}^{g\,(PS)\,(\nu)}(x,\xi,t) - \tilde{H}^{g\,(PS)\,(\nu)}(-x,\xi,t)\right]\,, \tag{B23}$$

where $\tilde{H}^{g\,(PS)\,(\nu)}(x,\xi,t)$ defined for $-\xi < x < 1$ is given by

$$\begin{aligned}
&\tilde{H}^{g\,(PS)\,(\nu)}(x,\xi,t) \\
&= \theta(x>\xi)\frac{1}{\pi}\int_{y_0}^1 dy \left[\frac{1}{3}\left(1 - y\frac{\partial}{\partial y} + \frac{1}{2}y^2\frac{\partial^2}{\partial y^2}\right)\Delta G^{(PS)}_{2\nu}(y,t)\right]\int_{s_1}^{s_2} ds\, \frac{x_s^{1-2\nu}(1-s^2)}{\sqrt{2x_s - x_s^2 - \xi^2}} \\
&+\theta(|x|<\xi)\frac{1}{\pi}\int_0^1 dy \left[\frac{1}{3}\left(1 - y\frac{\partial}{\partial y} + \frac{1}{2}y^2\frac{\partial^2}{\partial y^2}\right)\Delta G^{(PS)}_{2\nu}(y,t)\right]\Bigg\{\int_{s_1}^{s_3} ds \frac{x_s^{1-2\nu}(1-s^2)}{\sqrt{2x_s - x_s^2 - \xi^2}} \\
&-\frac{\pi}{\xi^{2\nu}}\left(1-\frac{x^2}{\xi^2}\right)^2 \sum_{l=0}^{2\nu-2} C^{\frac{5}{2}}_{2\nu-l-2}\left(\frac{x}{\xi}\right) P_l\left(\frac{1}{\xi}\right)\frac{6y^{2\nu-l-1}}{(2\nu-l+1)(2\nu-l+2)}\Bigg\}\,.
\end{aligned} \tag{B24}$$