Errata for "The geometries of 3-manifolds", Bull. London Math. Soc. 15 (1983), 401-487, by Peter Scott

Page 411: The last sentence of para 2 asserts "Certainly, if all angles are less than π, this can be done."

This is false. The correct statement is that if α, β and γ are numbers between 0 and π, then they form the angles of a spherical triangle if and only if $\alpha + \beta + \gamma > \pi$ and $\alpha + \beta < \gamma + \pi$, $\beta + \gamma < \alpha + \pi$, $\alpha + \gamma < \beta + \pi$. The last three conditions must hold for a spherical triangle, as such a triangle has area less than that of each of the lunes which contain it, and a lune with angle α has area 2α.

Page 460, line 13: It need not be true that "all the leaves of this foliation are compact".

Page 468, lines -7 to end: There is a bad misprint here in which two sentences were messed up in the printed version. This paragraph (beginning on line -7 of page 468 and ending on line 3 of page 469) should read as follows:

"The isometry group of Nil generated by Nil and this circle action is 4–dimensional. It follows, as when we discussed $\widetilde{SL_2}$, that this group is the identity component of $Isom(Nil)$. As the map $(x, y, z) \to (x, -y, -z)$ is an isometry of Nil, we see that $Isom(Nil)$ has at least two components. In order to show that there are no more components of $Isom(Nil)$, we argue as for $\widetilde{SL_2}$. We need to find a loop l in $\mathbb{E}^2$ with a horizontal lift into Nil which is not a loop, i.e. the endpoints are distinct. Recall that the metric on $\mathbb{R}^3$ is given by $ds^2 = dx^2 + dy^2 + (dz - xdy)^2$. It follows that the horizontal plane at (x, y, z) contains the vectors $(1, 0, 0)$ and $(0, 1, x)$. Now it is clear that if l is the boundary of the square in $\mathbb{E}^2$ with vertices $(0, 0)$, $(0, 1)$, $(1, 0)$ and $(1, 1)$, then a horizontal lift of l into Nil has distinct endpoints."