

- ▶ VALERY KHAKHANYAN, *The relations between Uniformization Principle and Church Thesis in the set theory with intuitionistic logic.*

Moscow State University of Railway Communications, Chair of Applied Mathematics-2. ul. Obraztsova 15, Moscow, 127994, Russia or Apt. 535, Litovskij boulevard 9/7, Moscow, 117593, Russia.

E-mail: valkhakhanian@mtu-net.ru.

Let CT and CT! be Church Thesis with choice (strong) and with uniqueness (weak) respectively. Let U and U! be principles strong and weak uniformization. Let ZFI2C + DCS (all postulates here or about are in [1] or [2]) be the set theory with intuitionistic logic and two kinds of variables (natural and set) and with collection scheme. It is known that: a) $ZFI2C + CT! \vdash U!$; b) $ZFI2C + DCS + CT! \not\vdash CT$; c) $ZFI2C - \text{extensionality} + DCS + CT \not\vdash U$. We proved that d) $ZFI2C + DCS + CT \not\vdash U$. Corollaries: e) $ZFI2C + DCS + U! \not\vdash U$; f) $ZFI2C + DCS + CT! \not\vdash U$.

I am going to speak also about some properties of models of realizability types which were used to prove b) - d) and to discuss some open problems.

[1] HAHANJAN V.H., *The comparative strength of variants of Church Thesis at the level of set theory*, **Soviet Math. Dokl.**, vol. 21 (1980), no. 3, pp. 894–898.

[2] HAHANJAN V.H., *The consistency of intuitionistic set theory with formal mathematical analysis*, **Soviet Math. Dokl.**, vol. 23 (1980), no. 1, pp. 46–50.