

^V
MATVEENKO, L.I. ^{Leonid}

¹⁸
interviewed 5/23/82

① Vitkevitch + M GO Izv. Vys. Ucheb. Zaved. Radiofiz. - 3cm λ w/ 102-ft fixed tel.
(over for ②-③)

- Polytechnic Inst in Leningrad in physics (degree 1956)

- → Lebedev Inst's Ciemes, R.A. station (head was Vitkevitch) (one concrete surface - the other earth)

- several m- λ 's for Tau A $\odot$ occultation; 2 30-m holes in the grounds w/ several dipoles
(diff. λ 's) at focus (500 m apart) and, later, in between on 80-m long grating array (each element
= λ -long dipole, ~15 of em; λ 5-m) which produced images ~1° apart & - they were resolved
out, but Tau A was there (Vitkevitch's idea)

- Then they added a 4x3 array of $\boxed{Hr}$ antennas (each w/ reflector) ~~just below~~ The array made a
~500-m - triangle w/ the 2 holes in ground; each element gave 75 Ω impedance @ "automati-
cally" + also was low to the ground, to avoid interference

① - first they used one dish at λ 3 cm on $\odot$; correlation w/ opt. spots + prominences; height h_p ^{radius} cm.

- ~~Stepan~~ Stepanov (old chit. station at Ciemes) + M. worked together on $\odot$ activity

VLSI - Matveyenko, Kardashev + Sholomitshko 65, Radiofiz. Σ , 651 has VLSI idea, but "was originally thought
of in '62, but then delayed ~18 months as they tried (unsuccessfully) to get a patent

- (longer, incl. space applications) article submitted 1/64, but referee problems meant only accepted 1/65

- ② Vitkovich, ~~at~~ Kuzmin, N. Sorochenko + Udal'tsov 61 Radetsk + Flekt - Luna 2 rocket tracked at radio ^{interb.}
③ N + Sorochenko 62 Ier. Vyssh Uchib. Zaved. Radiofiz. - 8x18 m dish at Crimea used for total $\odot$
eclipse of 24st at Crimea, λ 22 + P3 cm

re ② - M. et al were preparing for a eclipse in Tahiti (!), but then that was scrapped when
They got 3-weeks warning about the launch of Luna's 6, 7 + 8
- They got good data only for Luna 2

re ③ - eclipse path went right across the Ob! ^{inspired by Vit.}
- They got good pos'ts for a storm

1962-3 - he began observing the Crab from a Soviet "PSN" station in N of Crimea

- 8 x 16-m dishes ^{existing one} plus an 8-cm maser used (long waveguides from dishes to maser)
- at this time, Perzin + Wilson had just detected their (7 cm) excess by a Ray wrote to M. (who had published about "first maser in Soviet R.A.") to see if he also had an excess, but M. did not know the absolute cal. well enough

1964 - series of ³ lunar occ's of Tau A observed at Kurel Is at "DSN", Crimea, + Puchina
- found that (1) Crab has well-defined boundary at all λ 's (2) Crab's map shows shell, amorphous region ($\rightarrow$ p. 2), + central hole (no pt. source as Shklovsky had been "looking for")